

REFRIGERATION NEWS

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Gibson Shows Nine Models In 1938 Line

Size of Cabinets Ranges From 4 to 8 Cu. ft.; MonoUnit Refined

GREENVILLE, Mich. — Gibson Electric Refrigerator Corp.'s 1938 line of household refrigerators includes nine models in five different sizes, ranging from 4 to 8-cu. ft. net storage capacity. The line was recently shown to 150 distributors in a convention at the Pantlind hotel, Grand Rapids, Mich.

All nine models in the 1938 line include the Freezer Shelf, leading Gibson feature for the past three years. Full line has two special units, three standard units, and four deluxe units. These last named units are available with either "Hylux" white lacquer or porcelain exterior finish; all other models are furnished in Hylux finish only.

The two special models have capacities of approximately 4 and 6 cu. ft.; standard models are available in sizes of 5, 6, and 7-cu. ft. capacity; and deluxe units come in sizes of 5, 6, 7, and 8 cu. ft.

In addition to the Freezer Shelf, new Gibson models have sliding shelves, large vegetable crisper, "Defrostajar" defrost tray, ice tray lifter, and a "swing shelf." Cabinet design is the work of David Evans, industrial designer.

The hermetically sealed Gibson (Concluded on Page 2, Column 3)

Radio Firms Oppose FTC Code Wording

WASHINGTON, D. C. — Disapproval by the Radio Manufacturers' Association of the wording of the Federal Trade Commission's proposed trade practice rules for the radio receiving set manufacturing industry was expressed by representatives of the association at a hearing here last week.

James M. Skinner, chairman of the trade practice rules committee of RMA and president of Philadelphia Storage Battery Co. (Philco), acted as spokesman for the association's directors during the commission hearing, and said that the rules proposed by the FTC differed from those originally submitted by the RMA mainly in their wording, and not in principle.

In explaining the objections made by members of the radio manufacturing industry, Mr. Skinner grouped them into three classifications.

"First group of objections," he said, "centers about the appearance in various parts of the rules of the words 'origin,' 'manufacture,' and 'distribution.'"

"Our objection to the inclusion of these words does not mean that we want to be free to make misrepresentations as to origin, manufacture, and distribution."

"We fear that some day, somehow, these words might be interpreted to require that each manufacturer must place his own name upon all products, whether made for his own distribution or the distribution of others, and that all advertisements must disclose the name of the manufacturer of each product of the industry."

A. S. Wells, of Chicago, a director and committee member of RMA, also voiced opposition to the commission's proposed requirement for identifying "origin" and "manufacture" of radio sets. He declared that such identification was not required by any other industry rules, by law, or by any court decision.

Similar opposition was presented by I. C. Fox, general counsel of Na- (Concluded on Page 20, Column 2)

Norge Zone 1 List Prices Begin At \$117.50

DETROIT—Suggested Zone 1 retail prices of 1938 Norge electric refrigerators are as follows, including the \$5 warranty charge:

STANDARD SERIES	
R32-8	\$117.50
R41-8	142.50
R42-8	157.00
R51-8	182.50
R61-8	212.50
R71-8	236.00
R81-8	259.50
R130-8	385.00
SPECIAL SERIES	
S52-8	\$162.50
S62-8	182.50
S71-8	202.50
DELUXE SERIES	
P42-8	\$169.50
P51-8	205.50
P61-8	236.50
P71-8	260.50
P81-8	284.50
LTP81-8	319.50
LTP123-8	439.50
APARTMENT MODEL	
A31-8	\$122.50

Subjects Listed for ASRE Convention

NEW YORK CITY — Various phases of food refrigeration, fluid flow, refrigeration theory, air conditioning, and refrigerating machinery will be discussed by speakers during the five technical sessions of the 33rd annual meeting of the American Society of Refrigerating Engineers, scheduled to open Jan. 25 at Hotel Roosevelt.

The convention's social program will include a night club party, the society's annual dinner dance, and several events arranged especially for women guests of the members.

N. H. Hiller, past president of the organization, will serve as guest chairman of the morning session on the opening day. Theme for this session will be food refrigeration. Topics and speakers planned for this meeting follow: "Refrigeration in Modern Breweries," by George B. Bright, consulting engineer, Detroit; "The (Concluded on Page 2, Column 1)

8,214 Home Appliances Sold by Wash. Dealers

SPOKANE, Wash.—Total of 8,214 units of household electrical equipment was sold by Washington Water Power Co. and associated dealers during September, according to Lewis A. Lewis, assistant general manager in charge of sales.

Included in the sales were 382 refrigerators, 217 electric ranges, 198 water heaters, 1,280 radios, 690 washing machines, and 1,500 I.E.S. lamps.

Newspapers Help Dayton Dealers in Price-Cutting Fight

DAYTON—Local newspapers are now refusing to accept advertising from "bootleg" appliance dealers who buy merchandise outside and sell it here at under-market prices, it was announced at a recent meeting of the Gas & Electric League of Dayton.

This point came up in a discussion by the 30 league members of the Ohio fair trade act. Also discussed was the possibility of all distributors conforming to the act and stabilizing prices on gas and electric refrigerators, radios, and other household appliances.

It was suggested that if a plan for distributor cooperation were adopted, a distributor could revoke the franchise of any dealer in his organization who sold appliances below established prices.

Brooks H. Harmon, league secretary, was instructed to draft a code of rules and regulations governing trade-in allowances on radios and refrigerators for presentation at the league's next regular meeting.

Appointments of chairmen and members of various committees also were made during the meeting by Cliff Morgan, president.

A. E. Wagner, league vice president, Dayton Gas Refrigeration Sales, was named chairman of the program committee, whose first task is to study the proposal of a refrigeration show next spring.

J. J. Leff, past president of Sears, Roebuck & Co., was named chairman of the membership committee.

Mr. Wagner and Mr. Leff also were appointed to an executive committee, along with Mr. Harmon, Kenneth Chase (treasurer), John Tehan (past president), and Mr. Morgan himself.

Chicago Lays New Water Mains to Handle Load For Conditioners

CHICAGO—To meet the increasing water demand of its downtown district, a large share of which is due to the growing use of air conditioning by business establishments, the city of Chicago is laying new 16-inch cast iron mains under State St.

Capacity of air-conditioning equipment in the loop district alone, a mile-square area in the heart of the city's business section, totaled 16,328 tons on Oct. 1 of this year, according to estimates of utility officials. Approximately 40% of the total is concentrated in six blocks on State St.

One of the large Chicago stores uses water at the rate of 3,000,000 gal. per day, which corresponds to the normal supply for a city of 30,000 inhabitants.

Approximately 47,000,000 gal. of water per day is required by the combined air-conditioning equipment (Concluded on Page 20, Column 1)

Styled Cabinets Plus Redesigned Unit Mark Universal Cooler Line

Westinghouse Adds 2 Large Size Models To 1938 Line

EAST PITTSBURGH—Two new refrigerator models, FP-135 and FP-200, with respective food storage capacities of 13.5 and 20.1 cu. ft., have been added to the Westinghouse line for 1938. Market for these models is expected to lie in large homes and medium-small restaurants.

FP-135 has a shelf area of 24.5 sq. ft., an ice capacity of 148 cubes or 15 lbs., and measures 58 1/2 inches high, 53 1/2 inches wide, and 27 1/4 inches deep; FP-200 has a shelf area of 31.4 sq. ft., an ice capacity of 136 cubes or 24 lbs., and measures 65 1/2 inches high, 60 1/4 inches wide, and 28 1/4 inches deep. The units are designed to occupy a minimum of floor space.

Both models feature the twin-unit (Concluded on Page 2, Column 2)

Conditioning Orders \$3,938,053 in Oct.

WASHINGTON, D. C. — Orders booked for air-conditioning systems and equipment by 125 manufacturers during October totaled \$3,938,053, an increase of .7% over the \$3,910,932 reported during September, but a decrease as compared with \$4,401,101 during October, 1936, according to figures released by Director William L. Austin of the Bureau of the Census, Department of Commerce.

Orders for air-conditioning systems alone, of both unit and central station type, were valued at \$1,285,305 during the month, compared with \$1,194,296 in September and \$1,377,201 in October of 1936.

Self-contained unit system orders totaled \$193,577, compared with \$101,558 during October of last year; systems not self-contained, but of the unit type, had orders totaling \$415,218, compared with \$526,492 during the corresponding month of 1936.

Central station systems for human comfort had orders during October of \$310,687, compared with \$292,595 for the same month last year; orders for industrial systems totaled \$110,487, compared with \$199,360 during October of 1936. Orders for refrigerating or cooling medium sold to contractors for use in conditioning (Concluded on Page 20, Column 1)

Whitlock Elected Head of Mullins Mfg. Co.

SALEM, Ohio—George E. Whitlock, former president of the City Auto Stamping Co., Toledo, recently was elected president of the Mullins Mfg. Co. here.

McNeal Reports Household Sales Gain of 102%; Keep Dealer Plan

DETROIT—Smartly styled cabinets with new interior features, and a condensing unit with a number of design improvements over last year's model, mark the 1938 Universal Cooler line of household electric refrigerators, now being introduced to the trade.

As in the past year, the company's policy will be to distribute its household refrigerator line on a direct-to-dealer basis. "Major accounts" such as department stores and large-operation appliance shops are the principal retail outlets.

There are three types of models in the 1938 Universal Cooler line: an "economy" or price series; an "intermediate" series; and a "deluxe" series. There are three models in each of these series, which with two porcelain models complete the line.

Zone 1 "recommended" retail prices are as follows:

"ECONOMY" SERIES (Lacquer)		
Model	Size	Price
CL-408	4.01 cu. ft.	\$119.95
CL-528	5.17 cu. ft.	134.95
CL-628	6.23 cu. ft.	144.95
"INTERMEDIATE" SERIES (Lacquer)		
BD-538	5.25 cu. ft.	\$149.95
BD-658	6.51 cu. ft.	164.95
BD-758	7.45 cu. ft.	184.95
"DELUXE" SERIES		
AD-538	5.25 cu. ft.	\$164.95
AD-658	6.51 cu. ft.	184.95
AD-758	7.45 cu. ft.	204.95
"PORCELAIN" SERIES		
ADP-658	6.51 cu. ft.	\$199.95
BDP-658	6.51 cu. ft.	179.95

The new models were introduced at a recent meeting of Universal Cooler's zone managers and factory field selling force here.

In addressing the sales representatives, Universal Cooler's President F. S. McNeal declared that the company had shown an increase of 102% in sales of household systems and units in its past fiscal year over the previous fiscal year. (It was reported in the Dec. 1 issue of AIR CONDITIONING AND REFRIGERATION NEWS that an increase of 41% had been shown in sales of household systems.)

Mr. McNeal stated that production on household models was starting in the first week of December this year, as contrasted with March of last year, in the expectancy of an earlier and greater volume of sales.

H. A. D'Arcy, sales manager, introduced the new models. He traced the history of private brand refrigerator merchandise, and pointed to the fact that an increasing number of retail- (Concluded on Page 13, Column 1)

Four-Day Program Set For ASHVE Meeting

NEW YORK CITY—A full four-day program of technical meetings has been planned for the annual meeting of the American Society of Heating & Ventilating Engineers, to be held Jan. 24-28 at the Hotel Biltmore here.

A joint session with the American Society of Refrigerating Engineers will be held on Wednesday afternoon, Jan. 26; and a joint meeting with the National Warm Air Heating & Air Conditioning Association on Tuesday afternoon, Jan. 25.

Entertainment program for the convention includes a get-acquainted dinner and president's reception on Monday night, Jan. 25; a cabaret party on Tuesday night; and the annual banquet on Thursday night, Jan. 27.

During the morning session on Tuesday, Jan. 25, two papers will be (Concluded on Page 2, Column 4)

Sales Representatives Look Over Universal Cooler Line



(1) F. S. McNeal, Universal Cooler's president, congratulates Warren E. Brennan of Detroit, the company's leading salesman in the past year, and in turn receives congratulations on the new line. (2) J. E. Brennan, zone 1 manager, discusses sales features of the new line with Dwight Morris, zone 4 manager (Pacific Coast). (3) H. A. D'Arcy, Universal Cooler household sales manager, demonstrates deluxe line to Don Mason, Chicago.

Varied Subjects on A.S.R.E. Program

(Concluded from Page 1, Column 2) Field of the Food Technologist," by Prof. B. E. Proctor, Massachusetts Institute of Technology, Cambridge, Mass.; "How Cities Are Fed," an informal talk by Walter F. Hedden, chief, Bureau of Commerce, Port of New York Authority.

Gardner Poole, A.S.R.E. vice president, will act as toastmaster during the welcoming luncheon, and Johnson O'Connor, Human Engineering Laboratory, Stevens Institute, Hoboken, N. J., will speak on "Engineering Humanics."

The following discussions of fluid flow are slated for the afternoon session of the first day: "Flow of Refrigerant Fluids," A. B. Stickney, Armour & Co., Chicago; "Viscosity of Oils Diluted with Refrigerants," O. C. Rutledge, General Electric Co., Schenectady. In addition, Louis Ruthenberg, president, Servel, Inc., will give an informal talk on "Industrial Relations." Crosby Field, A.S.R.E. vice president, will chairmen this session.

Theoretical questions will occupy the attention of convention-goers on the morning of the second day, when the following program will be presented: "Heat Transfer in Low Temperature Brine Coolers as a Function of Velocity and Viscosity," J. C. Consley, York, Pa.; "New Insulation Studies," F. G. Hechler and E. R. Queer, State College, Pa.; "Metals at Very Low Temperatures," V. T. Malcolm, Chapman Valve Mfg. Co., Indian Orchard, Mass.; "Thermodynamics of the Absorption Refrigerating Machine," B. H. Jennings, professor of mechanical engineering, Lehigh university, Bethlehem, Pa., and F. P. Shannon, Philadelphia & Reading Coal & Iron Co., Philadelphia. Harry D. Edwards will preside.

The following three addresses pertaining to air conditioning will constitute the program for the fourth technical session, scheduled for the afternoon of the convention's second day: "Controls for Air Conditioning in Large, Medium, and Small Buildings," W. E. Zieber and S. F. Nicoll,

York Ice Machinery Corp., York, Pa.; "Cooling Tower Equipment and Its Relation to Water Conservation," S. I. Rottmayer, Chicago; "Physiological Reactions and Sensations of Comfort under Various Atmospheric Conditions," C. E. A. Winslow, L. P. Herrington, and A. P. Gagge, John B. Pierce Laboratory, Yale university. The meeting will be conducted by Willis H. Carrier.

Concluding session of the convention, to be held on the morning of Jan. 27, will be concerned with refrigeration machinery. Topics and speakers follow: "Storage Systems for Hold-Over Effect in Refrigeration," W. F. Friend, Electric Bond & Share Co., New York City; "Statistics in Refrigeration," David L. Fiske, editor of Refrigerating Engineering; "Extended Surface Cooling Units—Design Calculations," R. H. Swart, General Refrigeration Sales Corp., Beloit, Wis.

Reports of the society's joint committee on air-conditioning standards also will be heard. H. M. Williams, A.S.R.E. president, will act as chairman of this closing session.

Larger Refrigerators Are Built by Westinghouse

(Concluded from Page 1, Column 2) application, so each is equipped with two fast-freezing Sanalloy evaporators of welded tubeless construction and two hermetically sealed compressor units of the vertical reciprocating type. These units are protected against thermal overload by the exclusive "Built-in Watchmen."

The twin-unit system is said to assure adequate refrigeration performance under heavy load conditions, and to make it possible to maintain different temperatures in the two food storage compartments.

Both models have porcelain exterior finish with chromium trim, seamless porcelain interior lining, and acid-resisting bottoms. They are fully equipped with two built-in crisper pans, two Ejecto-Cube ice trays, two single-depth aluminum trays with rubber grids, two triple service trays with metal grids, utility basket, Handy-Jack ice tray release, and flat-rubber shelves.

Crosley Distributors & Company Heads See New Plant



(1) Front-row executives in the front row of this picture are Harry Gidolng, Anchor-Lite Appliance Co., Pittsburgh; Lewis M. Crosley, executive vice president of Crosley Radio Corp.; Charles Sawyer, vice president, Crosley Radio Corp.; Powell Crosley,

Jr., president, Crosley Radio Corp.; Thomas W. Berger, general sales manager. (2) No circus team is this but just the "long and short of it" at the Crosley convention. Robert F. Hall of the Steel City Appliance Co.,

Birmingham, Ala., and 6 feet, 6 inches tall; and Dynamic Hyman Reader, Readers' Wholesalers, Houston, Texas (no height given). (3) Crosley vice presidents Charles Sawyer, Powell Crosley, III, and J. P. Rogers on a tour of the new Richmond plant.

Advertising Program For Gibson Dealers Is Outlined

(Concluded from Page 1, Column 1) twin-cylinder MonoUnit is used in all models of the new line, and is now equipped with a quieting element in conjunction with the head. Insulation in all models is said to be "triple sealed."

A factory-paid newspaper advertising campaign, tied-in directly with the dealer, will begin in February and continue throughout most of the active refrigerator selling season, it was announced. In addition, a cooperative advertising campaign, covering newspapers, radio, and outdoor advertising, will be made available to distributors and dealers.

At the distributors' meeting, factory officials said that Gibson sales had increased more than 49% during 1937, as compared with 1936, while sales increase for the industry as a whole had been but 23%.

A.S.H.V.E. Plans Joint Meetings with Warm Air Heating Group & A.S.R.E.

(Concluded from Page 1, Column 5) read—"Application and Economy of Steam Jet Refrigeration to Air Conditioning," A. R. Mumford and A. A. Markson; and "Cooling Tower Equipment and Its Relation to Water Conservation," S. I. Rottmayer.

The afternoon session on Tuesday will be held in conjunction with the National Warm Air Heating & Air Conditioning Association and will feature papers on "Air Distribution from Side Wall Outlets," by D. W. Nelson and D. J. Stewart, and on "Condensation within Walls," by F. B. Rowley, A. B. Algren, and C. E. Lund.

Papers to be presented on the morning of the following day are: "Studies on Bacterial Control in Air Conditioning," T. S. Carswell, J. D. Fleming, and H. K. Nason; "Physiologic Response of Man to Environmental Temperature," Dr. F. K. Hick, Dr. R. W. Keeton, and Nathaniel Glickman; "Control of Body Heat Loss Through Radiant Means," Dr. C. A. Mills and Dr. Cordelia Ogile; "Summer Cooling Requirements of 275 Workers in an Air Conditioned Office," A. B. Newton, F. C. Houghten, Carl Gutberlet, and R. W. Qualley.

Wednesday afternoon the A.S.H.V.E. will meet jointly with the American Society of Refrigerating Engineers to hear the following papers presented: "Control of Air Conditioning in Large, Medium, and Small Buildings," W. E. Zieber and S. F. Nichol; "Physiological Reactions and Sensations of Comfort Under Various Atmospheric Conditions," C. E. A. Winslow, L. P. Herrington, and A. P. Gagge; "Performance Tests of Asbestos Insulating Air Duct," R. H. Heilman and R. A. MacArthur.

On Thursday morning, Jan. 27, the

following papers will be read: "Heating Effects of Artificial Lighting on Air Conditioning," Walter Sturrock; "Comparative Analysis of Office Building Air Conditioning Systems," J. R. Hertzler; "Heating and Ventilating the Lincoln Vehicular Tunnel," C. W. Murdock.

Final technical session will be held Friday morning, when papers will be heard on: "Drop in Skin Temperature and Sense of Coolness with Various Air Conditions," F. C. Houghten; "Study of Methods of Control and Types of Registers as Affecting Temperature Variations in the Research Residence," A. P. Kratz and S. Konzo; "Heat Transfer through Single and Double Glazed Steel Sash," M. L. Carr, R. A. Miller, A. C. Byers, and Leighton Orr.

Personnel of the committee on arrangements follows:

A. C. Buensod, general chairman; Alfred Engle, vice chairman.

Inspection and transportation—A. J. Offner, chairman, H. L. Alt, A. L. Baum, J. G. Eadie, C. W. Koehler, T. W. Reynolds, and G. W. Martin.

Finance committee—F. E. W. Beebe, chairman, and W. M. Heebner.

Publicity committee—C. H. B. Hotchkiss, chairman, John James, and R. V. Sawhill.

Entertainment committee—G. E. Olsen, chairman, Louis Hament, A. F. Hinrichsen, E. J. Ritchie, W. J. Osborn, and K. L. Mytinger.

Banquet committee—Russell Donnelly, chairman, A. A. Adler, V. J. Cucci, R. W. Cumming, H. B. Hedges, C. R. Hiers, H. G. Meinke, C. H. Quirk, and B. H. Schulze.

Reception committee—W. W. Timmis, chairman, L. W. Charlet, M. E. Durkee, J. R. Murphy, R. D. Tyler, N. P. Fenner, H. P. Waechter, and L. L. Munier.



THE ETERNAL CYCLE

OBSOLESCENCE • RESEARCH • PROGRESS

For more than 34 years Century has helped manufacturers reach higher levels in development, production, sales and profits, by keeping pace with the Eternal Cycle of Industry—Obsolescence that destroys... Research that builds anew... Progress that is ever changing, never ending.

Many an enterprise—from its early beginning—has been helped by the sound, inherent worth of Century Motors... Many times, their cost has been "written off" long before their usefulness has been impaired—many times, they have outlived the reasonable "expectancy" of the driven equipment.

In 1938, benefit by Century's massed experience... It costs no more—and it may contribute substantially to your development, progress and profit!

CENTURY ELECTRIC COMPANY
1806 Pine Street St. Louis, Mo.
Offices and Stock Points in Principal Cities

UP TO 600 HORSEPOWER

CENTURY POLYPHASE MOTORS

Product of Research... Built to meet the tempo of Progress... They start quietly... Run quietly... Remarkably free from vibration.



STEWART WARNER Uses SYLPHON BELLOWS for Crankshaft Seals

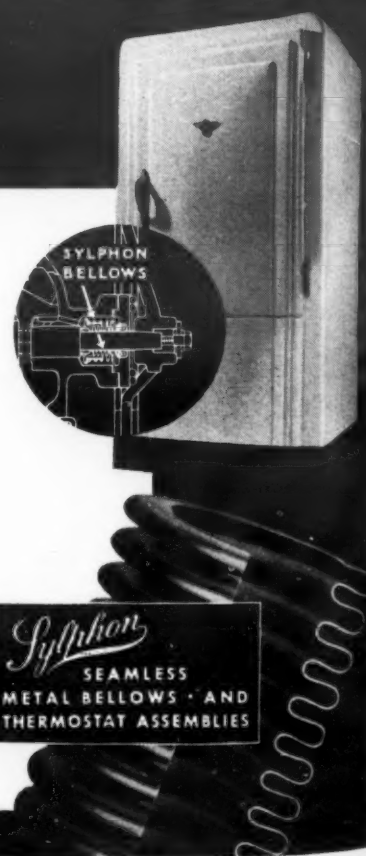
For maximum durability—refrigerator manufacturers logically turned to metal—not only for principal structural members, but to replace troublesome wearing, leaking, or deteriorating parts, small in size but vital in importance to satisfactory service—free operation.

The Sylphon Bellows—a seamless, jointless "miracle in metal"—has solved many such problems for refrigerator manufacturers by supplying the durability of metal while providing necessary flexibility for use where metal has never before been applicable.

The Sylphon Bellows is the product of over 35 years of experience—its satisfactory use is insured by a knowledge of Bellows properties and application which is unexcelled. This knowledge and experience is available to you for the asking.

Ask for Bulletin XO-121

The Fulton Sylphon Co.
KNOXVILLE, TENNESSEE



Minot, N. D. Passes Ordinance Limiting Canvassing of Homes

MINOT, N. D.—House to house solicitation by salesmen representing out-of-city firms is prohibited under provisions of an ordinance passed by the Minot city council recently.

Patterned after the famed Green River, Wyo., ordinance which has been sustained by the United States Supreme Court, it classifies solicitation without the invitation of householders as a misdemeanor, punishable by a fine of not less than \$19 or more than \$100.

Members of the city council, who passed the measure without a dissenting vote, said it was aimed at solicitors of out-of-town firms, and would not be invoked against salesmen of local business establishments.

Dunbar to Assist Lang in G-E Advertising

CLEVELAND—J. W. Dunbar, formerly in charge of magazine advertising for the incandescent lamp department of General Electric Co., Nela Park, has been appointed assistant to C. H. Lang, advertising manager, his office being in New York City.

Mr. Dunbar joined the G-E lamp department's sales promotion staff after a year of service in the World War. He later became editor of the Stimulator magazine, house organ for G-E dealers, and was first commercial editor of the Magazine of Light, successor to the Stimulator.

When Edison and National Lamp Works merged in 1930, Mr. Dunbar took charge of the advertising section of the sales promotion department.

Employees of Landers, Frary & Clark Vote for CIO

NEW BRITAIN, Conn.—Employees of local plants of Landers, Frary & Clark, appliance manufacturer, have signified their desire to be represented in collective bargaining with the management by Local 207 of the United Electrical, Radio and Machine Workers, a CIO union. The vote, in an election conducted by NLRB representatives, was 1,998 to 108.

In a separate election at the Landers plant in New Hartford, the vote was 210 to 8 in favor of the CIO. Result of the election makes it mandatory for the company to deal collectively for the union shop committee, according to NLRB officials.

New Jersey Utility Sales of Appliances Set Record

NEWARK—October sales of gas and electric appliances by the affiliated companies of Public Service Corp. of New Jersey set new records for volume of sales in that particular month, the company reports.

Sales volume of electric appliances was 10.75% greater than that of October, 1936, and exceeded that of any one month in the corporation's history.

The volume of gas appliance sales in October was 8.5% higher than that of the corresponding month of 1936, and was the highest of any October since 1930.

Funeral Services Held for Hotpoint Executive

NEWTON CENTER, Mass.—The late Charles P. Randolph, Jr., vice president in charge of engineering of Edison General Electric Appliance Co., Chicago, was buried here last week.

Mr. Randolph died in St. Mary's Hospital, Rochester, Minn., after a three weeks' illness. Funeral services were held in Oak Park, Ill.

A graduate with a master's degree of the University of Texas, Mr. Randolph specialized in chemistry at Massachusetts Institute of Technology. He joined the General Electric Co. as assistant to William Stanley, with whom he developed the first G-E electric range.

Later he became managing engineer of the heating device department of G-E's Pittsfield, Mass., works, and when this branch merged with Hughes Electric Heating Co. and Hotpoint Co. to form Edison G-E Appliance Co. in 1918, Mr. Randolph became chief engineer of the latter.

Anderson Named Auditor Of G-E Appliance Dept.

CLEVELAND—C. E. Anderson has been appointed auditor of the G-E appliance and merchandise department with responsibility for its accounting and financial operations at both Bridgeport and Cleveland, it has been announced by C. E. Wilson, vice president.

H. P. Smith, who has been auditor for the Cleveland appliance division, will henceforth perform special duties at Bridgeport relating to appliance sales, and will be responsible to C. M. Snyder, appliance sales manager. A. Lindenmeyer has been appointed accountant of the specialty appliance division of the appliance and merchandise department at Cleveland.

Mr. Smith has been with General Electric since 1920, as a member of the accounting department at Schenectady, as a traveling auditor, and as resident auditor at Cleveland. Mr. Lindenmeyer has been associated with the company since 1927, at Cleveland, and was appointed assistant auditor of the specialty appliance division in 1934.

Rosenmiller to Head ACMA Committee on Advertising

YORK, Pa.—J. L. Rosenmiller, manager of the sales promotion division of York Ice Machinery Corp., was appointed chairman of the committee on advertising and public relations of Air Conditioning Manufacturers' Association at the recent ACMA meeting in Chicago.

As chairman of the committee, Mr. Rosenmiller will head the ACMA activity of stimulating interest in and acquainting the public with the true functions of air conditioning.

Moore to Direct Appliance Sales for Miss. Utility

JACKSON, Miss.—W. A. Moore has been elected vice president in charge of appliance sales of the Mississippi Power & Light Co. A graduate of Georgia Tech, Mr. Moore is widely known in the state.

80% of Families Moving into New Homes Buy One Electrical Appliance during First Year, Kelvinator Survey of Market Shows

DETROIT — Surveys show that 80% of the families in America who move into new homes buy at least one electrical household appliance during the first year of residence, states Ralph C. Cameron, sales manager of household appliances for Kelvinator division, Nash-Kelvinator Corp.

"An investigation among people who built new single family homes during the past year," said Mr. Cameron, "reveals that they were sure prospects for buying 'other things' besides a house.

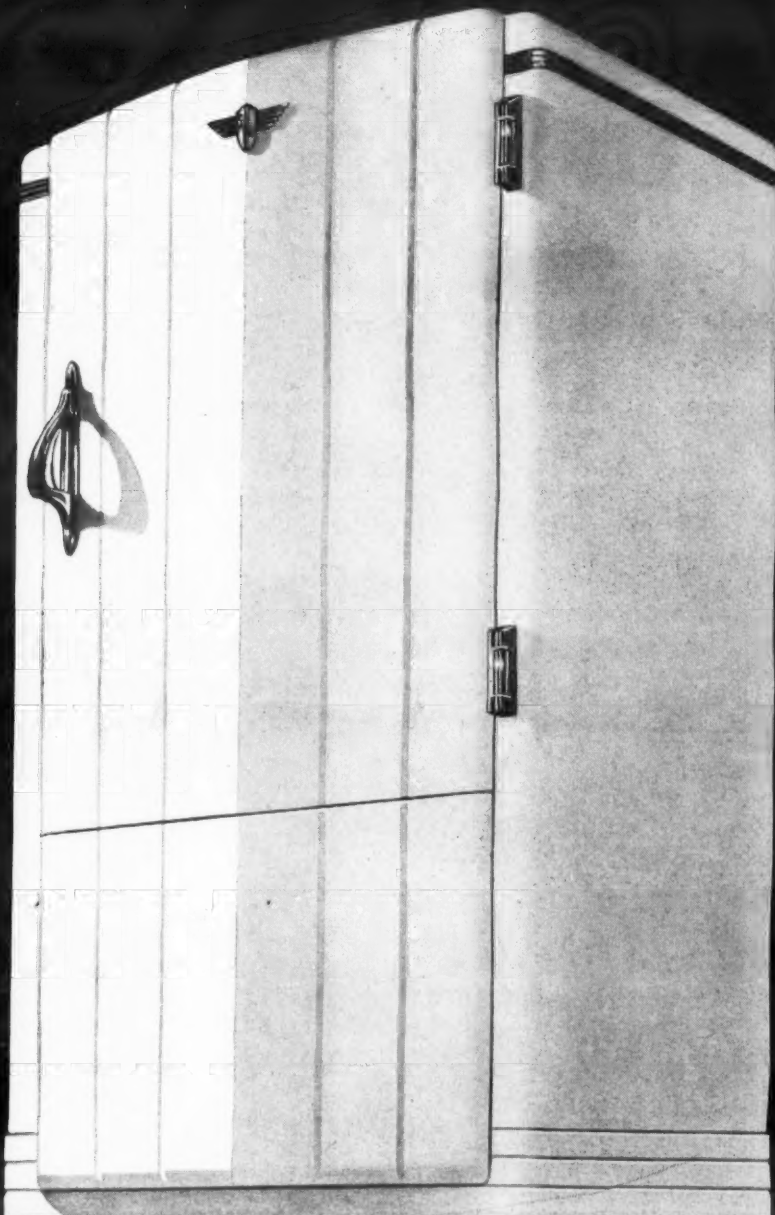
"When furnishing their new homes, 60% of the people purchased minor electrical appliances, 54.8% bought electric refrigerators, 22.3% bought electric washers. Construction cost of the homes ranged upward from \$4,000."

Mr. Cameron declares that the

most significant fact to be deduced from the study is that real estate presents an expanding market for electrical appliances.

The total of new buildings in 1937 ready for installation of electrical appliances and equipment is estimated at about 400,000, Mr. Cameron says. Of this total, more than 125,000 are single family homes, a substantial increase over the 80,000 single family homes built and furnished in 1936. The remainder of the 400,000 is made up of two, three, and four-family homes, and apartment houses.

Location of the future market depends upon the trend of the building activity in 1938, Mr. Cameron states. In 1936, he says, about 42% of the building was done in rural areas and 58% in urban areas. Similar percentages were maintained through 1937.



The Only

1938 REFRIGERATOR
That Is Completely New!

You'll hear this super-value Stewart-Warner discussed and praised more and more as other 1938 lines are announced. For only the Stewart-Warner is *completely new*—in exterior beauty as well as interior convenience.

With "More for your money" proved by the most startling visible evidence in history—with more than *doubled* advertising support—and with exclusive FREE Floor Plan and retail Finance Plans to speed sales and profits—Stewart-Warner is again headed for record sales—and record dealer profits. Write Stewart-Warner Corp., Chicago, for our intensely interesting proposition for dealers.

STEWART-WARNER
SAV-A-STEP REFRIGERATOR

SPECIALTY SELLING IDEAS

Invitational Cooking Schools Help G-E Dealer Overcome Competition

VANCOUVER, Wash.—Apparently thriving on handicaps and competition, Sparks Hardware Co., General Electric dealer here, had to overcome some pretty difficult obstacles to chalk up sales of 103 refrigerators, 60 washers and ironers, 43 ranges, and 25 radios this year.

In the first place, Portland, Ore., is only eight miles away, and many Vancouver citizens shop there to avoid paying the Washington state sales tax. But even if appliance purchasers should do their shopping in Vancouver, this would not necessarily mean that they would buy G-E equipment. And for that matter, Sparks Hardware Co. is not Vancouver's only G-E dealer.

So plenty of ingenuity had to be utilized to persuade appliance prospects to buy at Sparks'. The way in which the Sparks organization boosted its range sales is typical of the methods it employed to draw customers to its store. And here's the way the range plan worked:

Strictly invitational cooking classes were held in the store's complete G-E kitchen. To these classes, the store invited range purchasers, together with several prospects.

Sales resulting from this cooking school were analyzed and classified according to the manner in which the prospect making the purchase was secured. Here's how the pile of leads stacked up: 60% came from satisfied customers, 30% from customers who had purchased other appliances, 10% from miscellaneous sources such as advertising and floor prospects.

The board of strategy behind Sparks' appliance sales drive included: M. R. Sparks, owner; Harry Craig, general manager; Phil Yack, appliance manager; and Charles Laughton, salesman.

17,000 Women Attend Five Range Cooking Schools

BOSTON — More than 17,000 women attended the five electric cooking school demonstrations staged here recently by the Boston Post and Boston Edison Co. Each session featured the equipment of a different household appliance manufacturer, the five being Frigidaire, General Electric, Kelvinator, Norge, and Westinghouse.

Distributor & Staff Study Leonard Sales Helps



John A. White, Grand Rapids distributor who is the subject of the interview published below, points out some of the new Leonard promotion to members of his staff during the recent Leonard convention in Detroit. At the extreme left is Dick Stewart, sales manager.

Small Dealer Accounts Do 60% of Business Sold by Grand Rapids Leonard Distributor

GRAND RAPIDS, Mich. — "The three-and-four-boxes-a-year dealer accounts for 60% of my business," says John White, who distributes Leonard refrigerators over northern and northwestern Michigan from his headquarters here.

"My salesmen have to get mud on their boots to get sales," asserts Mr. White, "as each of the four wholesale men must follow a large number of small accounts in out-of-the-way places."

The White organization has obtained business through some unusual dealer outlets. Included in the dealer structure are two R. F. D. mailmen, two operators of filling stations, six general stores, one real estate man, and several garages.

The dealer at Lachine, Mich., is watchman in the local fire tower, and from this vantage point contacts the countryside by telephone to get prospects, closing the sales for Leonard units when he is off duty.

Beating the bush for business means following power line construction closely. In some instances Mr. White's men have been able to sell refrigerators before the power is actually turned on, and in other cases 15 to 20 Leonard units have been sold after a short power line extension has been made.

An organization of small dealers requires close supervision by the White wholesale men. Large towns are contacted once each week and small communities at least every two weeks.

In addition to this personal contact, dealers receive a bulletin from the White organization once each

Weekly Radio Programs Help Close 2,500 Sales

TULSA, Okla. — Weekly radio programs broadcast over two stations and affording coverage of a large part of the state constitute one of the most successful forms of advertising used by Oklahoma Tire & Supply Co. to promote sales of its household appliances, according to Eli Sanditen, manager of the distributorship.

Each Sunday afternoon the company sponsors a program called the "Sunday Afternoon Social." Staged in a local auditorium, it is broadcast by a Tulsa station and a station in Oklahoma City and, according to Mr. Sanditen, attracts customers to the company's branch stores in principal cities throughout Oklahoma.

The supply company also gives cooking schools in its branch stores under the direction of Frank White. Demonstrations are given in electric kitchens set up inside the salesroom, and company appliances are used.

The radio programs and the cooking schools, plus billboard and newspaper advertising, have been largely responsible for Oklahoma Tire & Supply Co.'s statewide sales of 2,500 refrigerators during the past year.

Candy Salesmen Get Appliance Prospects For Erie, Pa. Dealer

ERIE, Pa.—Arthur F. Schultz Co., local General Electric dealer, has sold approximately 1,500 household refrigerators, 1,000 electric ranges, 800 washing machines, 200 ironers, 12 dishwashers, 10 G-E kitchens, eight Disposalls, and a considerable amount of commercial refrigeration and air-conditioning equipment during the first 10 months of 1937, according to a report from G-E headquarters in Cleveland.

Arthur F. Schultz, owner of the firm and also owner of the adjacent Schultz wholesale confectionery and tobacconist company, credits most of this large volume of G-E business to his sales manager, John Roeser, his store manager, James Blair, and his star salesman, Lester Milner.

Mr. Milner, specializing in laundry equipment, has sold \$15,000 worth this year, two-thirds of it in the last six months.

Every salesman in the Schultz candy and tobacco business is perpetually on the lookout for refrigeration and air-conditioning prospects, getting commissions on all sales resulting from their leads.

Firmly convinced that the future of the appliance selling business lies in laundry equipment and complete electric kitchens, Mr. Schultz has had his staff of 12 refrigeration salesmen concentrate on these two products.

Mr. Schultz began his tobacco business 24 years ago when he was 18 years old, and built it up into a wholesale trade extending over eight counties in three states.

He branched into G-E commercial refrigeration three years ago, and immediately afterwards expanded his scope to cover household appliances and air conditioning. His company now has several branch stores in Erie and in nearby towns.

Personalized Letters Used By Airtemp Dealer

SHREVEPORT, La.—Personal letters to prospects form one of the most effective methods of sales promotion used by C. F. McKee, local Airtemp dealer, in selling air-conditioning equipment for offices.

Informal in style, the letters show each individual prospect how McKee's air-conditioning equipment applies directly to the prospect's business, what its benefits are, and how it would increase profits.

Each letter is quickly followed up by a salesman of the McKee staff, for the dealer says that to be really effective the letters should be closely tied in with contact selling.

Bundy Tubing

... the strength of steel plus workable ductility

BUNDY TUBING CO.
DETROIT



ANSUL CHEMICAL COMPANY
MARINETTE WISCONSIN

DISTRIBUTOR-DEALER DOINGS

Frigidaire to Open Nashville Branch

NASHVILLE, Tenn. — Effective Jan. 1, Frigidaire division of General Motors Sales Corp. will establish a company-owned branch here, with Fred M. Davison as district manager, announces Carl A. Copp, general sales manager of Frigidaire.

The new Nashville district will handle distribution activities in central and eastern Tennessee.

Mr. Davison, formerly in charge of Frigidaire operations in the Cincinnati area, will move to Nashville from that locality. He is a native of Madison County, Ky., and a graduate of Washington & Lee university.

He is a pioneer in the Frigidaire business, having been a Delco-Light dealer in Madison county and a co-owner of the first Frigidaire dealership in Kentucky, a franchise acquired in 1919, when Frigidaire was a Detroit concern.

In 1922, Mr. Davison went to Louisville to become city sales manager for the Tafel Electric Co., and the next year became a Frigidaire salesman for Thompson & Wood, then distributor for Frigidaire and Delco-Light in Kentucky.

Later he became sales manager, and afterward a stockholder in the company, being vice president and sales manager. In 1930, he joined the factory organization, supervising the Kentucky territory out of Louisville until transferred to Cincinnati as division manager.

Idaho Appliance Group Has Annual Meeting

BOISE, Idaho — The Electrical Equipment Sales Association, which includes in its membership dealers and salesmen from Boise, Nampa, Caldwell, Meridian, Emmett, Glens Ferry, and Mountain Home, held its annual banquet meeting at the Hotel Boise here Nov. 30.

C. A. Meier, Westinghouse representative from San Francisco, discussed sales problems in the household appliance field.

At the speaker's table were: C. B. Purkhiser, Caldwell, chairman of the Caldwell-Nampa division of the association; Joe W. Crowe, Boise division manager of the Idaho Power Co.; W. A. Hopper, Boise, chairman of the association; K. M. Robinson, president of the Idaho Power Co.; and R. E. Gale, secretary-treasurer of the association. Joe Imhoff, Boise advertising man, was master of ceremonies.

General Electric Supply Host To New Jersey Dealers

NEWARK—General Electric Supply Corp. recently held a three-day showing of the 1938 lines of Hotpoint and G-E household appliances for nearly 300 dealers from all sections of New Jersey.

Orders placed by the dealers at the convention were between 20 and 25% greater than those placed at the 1936 dealer preview, according to Frank Rose, sales manager for major appliances of the supply corporation.

Tafel Exhibits Westinghouse Line in Cincinnati

CINCINNATI—Tafel Refrigeration Co., local distributor of Westinghouse refrigerators, recently staged a four-day showing of 1938 models in the Hotel Gibson, being assisted by P. E. Rinehart, central refrigeration manager, and J. E. Hugo, central advertising manager.

Wimberly Directs Sales Promotion for Distributor

SAN ANTONIO, Tex.—J. H. Wimberly, Jr., former district manager for Kelvinator in southwest Texas, has been appointed sales promotion manager of Southern Equipment Co., local Kelvinator distributor. He assumed his new position Dec. 1.

Readers' Shows Crosley Line for 1938 on 4th Anniversary

HOUSTON, Tex.—Readers' Wholesale Distributors celebrated its fourth anniversary as Crosley distributor in the Houston territory Dec. 5 during a preview showing of 1938 models attended by more than 1,000 dealers and salesmen.

Hyman Reader, president of the distributorship, conducted the meeting.

Factory representatives taking part included Dick O'Connor, sales manager of the range division; H. F. Clayton, district sales manager of Crosley Radio Corp.; Bud Matthews, general sales manager of the Ken-Rad Tube Corp., Crosley division, and V. P. Ryder, general sales manager for the southwest district for the W. and J. Sloan Corp.

Perry-Browne Shows G-E Line to 150 Dealers

COLUMBIA, S. C.—General Electric's 1938 lines of appliances were previewed by about 150 G-E dealers from all parts of the state at a recent meeting in the Hotel Jefferson here sponsored by Perry-Browne Co., state distributor for G-E products.

Leon Williams of the G-E organization addressed the dealers on home laundry equipment. Other speakers included William M. Perry, president of the distributorship, and Robert M. Cooper, collector of internal revenue.

200 Attend 3-Day G-E Supply Preview at San Antonio

SAN ANTONIO, Tex.—More than 200 southwest Texas General Electric dealers and salesmen were guests of General Electric Supply Corp. here for a three-day showing of 1938 models which was concluded Nov. 30.

Among those on the program were Glenn C. Wasson, Dallas district manager, and Fred Staehle, Jr., San Antonio manager, both of the General Electric Supply Corp.; Will I. Wilt, Cleveland of the sales promotion division of the General Electric Co., and Ted Hall, Bridgeport, Conn., radio division.

New Westinghouse Models Shown in Twin Cities

ST. PAUL—More than 250 dealers from the twin cities and outlying regions attended a recent preview of 1938 Westinghouse refrigerators in the Lowry hotel here.

The new models were presented by H. M. Butzloff, district manager of the Westinghouse refrigerator division. Principal speakers were D. Schwartz, merchandise manager; J. T. Urban, merchandise manager of the northern division; and J. L. Fitch, manager of the Westinghouse Electric Supply Co. of St. Paul.

Merchandising plans for next year were outlined by C. A. Dostal, Chicago, and E. G. Beecher of Beecher-Cummings, Inc., Minneapolis.

Similar dealers' showings were scheduled for Duluth, Minn., and Sioux City and Waterloo, Iowa.

Brent Directs Westinghouse Meeting in Tulsa

TULSA, Okla.—W. A. Brent, manager of the Westinghouse Electric Supply Co. branch here, presided at a three-day meeting of 75 Tulsa district dealers and salesmen for a showing of 1938 models here recently. Other local officials taking part were Gilbert Crum, who introduced the speakers; M. B. Langford, who presented new merchandise; and A. S. Richards, who handled the reception program.

Dallas representatives of the company who addressed the dealers were Vance Hubbell, Paul J. Harrison, and J. F. Watrous.

Hotpoint Line Shown to 250 Ohio Dealers

CLEVELAND—1938 lines of Hotpoint refrigerators, washers, ironers, electric ranges, and other appliances were presented to 250 distributors and executives at a two-day meeting in Hotel Carter here sponsored by Edison General Electric Appliance Co., Chicago.

C. H. Smith introduced the refrigerators, A. H. Jaeger the water heaters, and D. C. Marble the ranges on the first day of the session. On the second day, H. E. Warren, of the home laundry division, presented the new washers and ironers. W. L. Jacoby discussed finance plans, W. R. Schaefer spoke on servicing, W. F. Ogden talked about engineering, and W. A. Grove revealed the advertising and sales promotion plans.

Hotpoint dealers viewed the 1938 appliances at a later meeting in the display rooms of the George Worthington Co., under the direction of D. Aitkin, Sr., manager of the appliance division. Mr. Aitkin announced the appointment of Art C. Bolz as manager of the electric specialty appliance division.

Two Airtemp Distributors Are Appointed

DAYTON—Appointment of two new Airtemp air-conditioning distributors has been announced by officials of Airtemp, Inc., here.

They are: James H. Lutz, Jr., Harrisburg, Pa., and John B. Zabriskie, Ithaca, N. Y.

Kiefer-Stewart Opens New Appliance Quarters In Indianapolis

INDIANAPOLIS — The Kiefer-Stewart Co., distributor for Kelvinator major appliances and RCA-Victor radios, opened home appliance division headquarters Dec. 6 in a four-story building at 215-17 S. Meridian St. here.

Refrigerator and radio repair departments are located on the first floor, with the second floor devoted to display of refrigerators. The third and fourth floors are used for display of other major appliances. The firm serves Kelvinator dealers in 54 Indiana counties and RCA-Victor in 39.

O. C. Maurer, vice president, is general manager of the appliance division, and Hugh C. Green is assistant manager.

Muskegon Distributor for Apex Is Appointed

MUSKEGON, Mich. — Fitzpatrick Electric Supply Co. has been appointed distributor in the west central part of the state for Apex appliances.

Biechler, Copp See McGregor's Building in Memphis

MEMPHIS, Tenn.—E. G. Biechler, general manager, and C. A. Copp, general sales manager of Frigidaire division, General Motors Corp., recently visited the new building here occupied by McGregor's, Inc., local Frigidaire distributor.

Servel Plant Visited By 250 Southern Representatives

EVANSVILLE, Ind.—Seward Abbott, Servel regional sales manager in the Dallas area, led 50 dealers and 200 salesmen from Oklahoma, Texas, Louisiana, and Mississippi on an inspection tour of the Servel plant here Dec. 1. The event was in recognition of the visitors' high sales records.

Luncheon at the plant cafeteria followed the inspection. George S. Jones, Jr., Servel vice president and general sales manager, was the principal speaker at an evening banquet session held at the McCurdy hotel.

The following officials of the Servel plant here were also at the dinner: Louis Ruthenburg, president; George L. Roach, W. E. Baker, Adolph Jansen, P. B. Wiske, C. A. Spiegel, F. G. Schlegel, M. F. Carr, J. C. Kellner, William A. Rorison, J. W. Laine, John F. Surbeck, R. B. Moore, W. D. Collins, R. G. Rogers, W. G. Campbell, H. O. Roberts, H. C. Kraemer, and E. A. Herr.

Besides Mr. Abbott, Servel southwest representatives were: Lew Libby, A. W. Lynch, C. E. Morgan, M. F. Cook, F. C. Rahlmann, C. S. Johnston, Jr., Lewis Eastmead, W. B. Schultz, and H. J. McFadden.

Southwest distributors' representatives were: Harry Canup, Charles Russon, Bob Brown, Burton Lyons, A. L. Seligman, M. R. McFarland, J. R. McBrayer, L. F. Murphy, Gilbert Fortier, Thad L. Fowler, Ed Boughtin, J. E. McCulloch, W. Graham, and A. C. Smith.

LET G-E MOTORS HELP YOU IN TWO WAYS

1 MOVE APPLIANCES OUT OF YOUR STORE 2 KEEP THEM OPERATING SATISFACTORILY



INCREASING the sales of appliances may seem a strong claim for a motor just off the production line; and we don't mean that the mere mention of a G-E motor on an appliance will sell it. We do believe, however, that it will help.

For example, a prospect comes into your showroom to look at refrigerators. She sees one that is very similar to another she has seen and likes. Both are of the same size, have equally desirable finishes and shelf arrangements, and the prices are comparable. But it will make a difference when she is told that your machine is equipped with a G-E motor. She knows from experience and from friends that the G-E monogram is assurance of dependable electric equipment; and, other things being equal, she will buy the one with a G-E motor.

AND why do G-E motors consistently promote the remarkable performance of appliances in which they are incorporated? Because they are designed and built to last and to require little or no attention. The cast-aluminum rotor is indestructible, and bearings require oiling but once a year. Washer motors have sufficient factory lubricant to last the life of the machines upon which they are originally mounted.

G-E motors are carefully balanced, and mounted in rubber. Quiet—you can scarcely hear them run; furthermore, they do not interfere with radio reception. Every motor is given a two-hour test run and is checked for quietness and efficiency before shipment—not to mention the many inspections given individual motor parts during manufacture. General Electric, Schenectady, N. Y.



GENERAL ELECTRIC

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COMMERCIAL REFRIGERATION

Carrier Dealers Describe Tested Methods of Selling & Installing Various Commercial Jobs

By T. T. Quinn

CHICAGO—Field-proved methods for selling all types of commercial refrigeration equipment, from self-contained display cases to refrigerated locker plants, fur storage vaults, and apple storage plants, were outlined to 135 Carrier commercial dealers and salesmen from the corporation's central territory in the first annual Carrier commercial refrigeration convention last week in the Merchandise Mart.

Primary purpose of the meeting was to show Carrier dealers that, in commercial refrigeration, they hold the key to year-around profits, if they couple it effectively with their air-conditioning activities. Mark E. Mooney, Carrier district representative, was in charge of the convention.

NEW COMMERCIAL PRODUCTS

Six new Carrier commercial products were shown at the meeting: a bakery refrigerator, a self-contained display case, a self-contained 35-cu. ft. refrigerator, a beverage cooler, a counter-freezer, and the Carrier-Esco milk cooler.

All speakers were men with actual experience in selling, engineering, and installing the commercial equipment about which they talked; and it was emphasized throughout the meeting that dealers were getting field-tested facts, not factory-inspired theories.

First Carrier commercial refrigeration convention, the meeting also was the first large gathering to be held in the Merchandise Mart's new Merchants' and Manufacturers' Club, equipped with Carrier air conditioning.

EFFECT OF RECESSION

The Carrier company is not impressed by the temporary business recession, E. T. Murphy, vice president of the company, said in his welcoming remarks opening the meeting.

"Refrigeration and air conditioning,

we believe, are favored industries, and will not be affected much by the current business slump," he said. The company's November business, he added, was larger than that during the same month a year ago.

"However, business will be harder to get; so that we will have to know our product and how to sell it," he declared. He emphasized that, in planning for the meeting, Carrier had scheduled most of the addresses by dealers who had been through the actual sales experiences; talks would contain facts, not theories, he said.

To drive home to dealers that commercial refrigeration is a year-around business, a skit, "Dollars in December," was presented by members of the Carrier Chicago office staff.

In two scenes, the skit first pictured the Carrier dealer, planning to reduce his engineering and sales staff for the winter months, being sold by his district manager on the value of attending the Chicago meeting and learning about commercial refrigeration possibilities. In the second scene, the dealer returns from Chicago with plans not only to keep all his present staff, but add a salesman or two, to capitalize on cold weather commercial business.

Boot Tells How Users Have Saved Money by Replacing High Pressure Systems

If the owner is approached on the "savings" angle, a large market for replacement equipment can be found among hotels, hospitals, clubs, and other institutions, Arthur Boot of Boot & Co., Grand Rapids, Mich., told the Carrier men.

Expenses of new refrigerating equipment, in most cases, will be more than covered by the savings made possible by the replacement of

ammonia and CO₂ equipment with low-pressure units, he said.

In the medium size hotels and hospitals, brine circulation jobs are generally installed; sometimes the brine line covering is old, with consequent loss in capacity. Also, the refrigerators are scattered throughout the building, so that separate units for one or a group of boxes will give increased operating economy, he pointed out.

Since it added modern refrigerating equipment, the Post Tavern, at Battle Creek, Mich., is showing savings of more than \$200 per month on power and water costs, Mr. Boot said.

USED TWO 17-TON UNITS

"This hotel was using two 17-ton compressors, each compressor driven by a 35-hp. motor, or a total of 77½ hp. This was replaced with equipment using 16 hp., a total of nine Carrier condensing units.

"One unit was used on a Victor clear ice maker, making about 1,500 lbs. of clear ice per day. In addition, another unit was used on a group of three large storage refrigerators in the basement, another on a freezer room, and another on a group of kitchen service refrigerators. Two units were used for cooling water throughout the building, and three other units for cafeteria and bar room service. Carrier cold diffusers were used in all walk-in boxes.

REUSING OLD COILS

"Naturally, every installation is different, and individual problems must be solved. In most cases, direct expansion ammonia or CO₂ coils are used to cool the brine in a tank for circulating, and to make ice. These same coils can be used for either Freon or methyl chloride.

"In most cases, if the brine covers all the coil, you will find the coils in perfect condition. We have been successful in removing the coils, cleaning the interior by sand blasting them, and re-installing them, ready to be hooked up to the low-pressure unit.

"Ample low side surface is provided, and ice can easily be made. In four jobs of this type, we have used the old coils, and found no trouble with scale or dirt to clog the expansion valves.

COLD DIFFUSER

"A cold diffuser operates better on a shorter cycle than the regular fin coil does. This should be considered when a diffuser and a fin coil are on the same compressor. It is possible to balance the two in order for both to operate satisfactorily.

"In this case, the coil and diffuser should be slightly oversize. The fin coil will, therefore, reduce the box temperature with a shorter on cycle, and eliminate the long running time of the condensing unit.

"Reason for the larger diffuser is to provide a longer hold-over or off-cycle, to balance more closely with the fin coil. This will also keep the suction pressure higher, to give a higher humidity. It is also advisable on the smaller units to provide heat interchanger lines, and if the suction

'Dollars in December'—From Commercial Refrigeration

Commercial refrigeration meetings have a habit of being pretty practical affairs—due, perhaps, to the fact that in his work-a-day doings, the commercial refrigeration salesman has to clinch his arguments with facts rather than theories. Carrier Corp.'s first annual commercial refrigeration convention last week in the Merchandise Mart was no exception.

On this and the following two pages are some of the "field-tested" selling facts detailed by speakers at the Carrier meeting. Included are dealers' own stories on selling refrigerating equipment to stores and markets, replacement jobs to hotels and institutions, florists' refrigerators, self-contained display cases, and a candid discussion of the relation of service to sales.

Next week's News will cover further experiences of Carrier dealers in selling refrigerated locker systems, jobs for fur storage and ice cream hardening work, large food markets, and bakery refrigerators.

lines are comparatively long, a simple arrangement of heat interchanger fittings is available at a small cost.

"On freezer installations, it is advisable to run heat interchanger lines, even if the run is short, to prevent frost-back to the compressor. The freezer unit on jobs should be operated with a separate compressor, both from a practical standpoint and for economy.

"With a separate compressor, the refrigerator may be maintained at any desired temperature without affecting the balance of the system, and also may be shut off when not needed, or adjusted to a higher temperature. We have decreased frosting and increased capacities of units in freezers by operating the fan at 1,160 r.p.m., instead of the standard 870 r.p.m. motor.

MORE AIR CIRCULATION

"In fact, in many cases, such as beer coolers, dairy coolers, etc., where air quantities are not critical, we have found it advisable to operate the fan at higher speed to increase the low side surface."

Urging dealers to take advantage of the large replacement market, and to use the "savings" story in their preliminary work, Mr. Boot went on to say that, in his experience, the salesman who first interests the prospect in replacement equipment has the best chance to sell the job.

In writing up proposals of this kind, Mr. Boot added, he has found it best to give a summary of the existing operating cost of the customer's present equipment, estimating power and water consumption on an average daily basis, and then going on to mention the savings in power and water costs as a result of buying new equipment.

"This is the point that will interest the owner and manager," he declared, "and if you can bring it to their attention, you can make the sale."

CUTTING SERVICE COSTS

Yearly free service cost can be reduced considerably, Mr. Boot pointed out, since a hospital or hotel has its own engineer, who is on the job all the time; and it will pay the dealer to spend a few days teaching the resident engineer how to run the

system, and explaining service parts in detail.

"One or two installations of this type in your community will lead to others," Mr. Boot said. "If you can take a prospect to see another hotel or hospital job similar to the one he's thinking of buying, the sale will be easier."

Time to go after this replacement business, the speaker said, is during the winter months, when comfort air-conditioning business is not at its peak. He emphasized the importance of being able to show the prospect an actual installation, rather than pictures. A trip of 300 or 400 miles to show an actual operating job is worth while, if it helps land the order, he maintained.

Best market for the used ammonia equipment taken in on replacement jobs is among dairies and creameries, Mr. Boot said. The dealer, when taking in the equipment, can make an allowance sufficient to cover a reasonable resale cost.

Value of Prompt, Efficient Service in Keeping Users Sold Cited by Goddard

Pointing out the importance of a first-class service department to the dealer who would make money in commercial refrigeration, M. B. Goddard, in charge of service for Carrier's Chicago branch, said that the biggest difference between servicing comfort conditioning equipment and product cooling equipment lies in the importance of the time element.

"If a comfort job breaks down, there is no great amount of damage involved, and it can usually be serviced during regular working hours," he said. "True, the public may be somewhat inconvenienced, but the public expects and forgives occasional inconvenience."

DAIRIES NEED QUICK SERVICE

"However, if a refrigerating plant operating on a meat cooler or an ice cream freezer, for example, should break down, immediate action is required to prevent large losses of product. Or the plant may be used

(Continued on Page 7, Column 1)

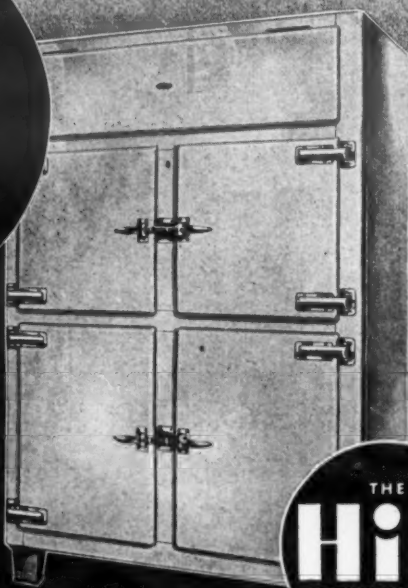
THE HILL REACH-IN REFRIGERATOR

Made Especially for **HOT KITCHENS**

Here is a box with heavier insulation, to keep down operating costs; all-porcelain exterior and interior, to withstand hard usage; better refrigeration, to prevent spoiling and drying; and many other features.

Send for complete illustrated 32-page catalog using business letterhead.

Note thick center of low conductivity corkboard insulation and also insulating board covering entire exterior, including frame.



HILL PRODUCTS DIVISION
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No. 2 of a Series of Curtis Advanced Engineering Features.

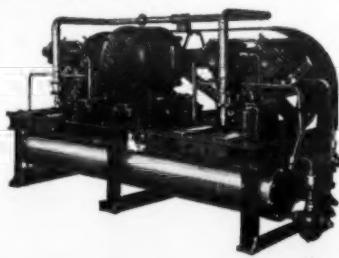
EXCLUSIVE CURTIS "CENTRO-RING" POSITIVE PRESSURE LUBRICATION PROVIDES REAL PROTECTION

The patented "Centro-Ring" system contains only one moving part—no gears, plungers or other parts to get out of order. A simple, free running ring picks up oil without churning and distributes it by centrifugal force to all lubrication points. Connecting rods and all other parts are lubricated correctly without regard to direction of rotation.

"Centro-Ring" positive pressure lubrication has been recognized throughout the industry as a real step forward in efficient lubrication, assuring long life and trouble-free service.

Engineering originality of this kind has been responsible for the wide use and acceptance of Curtis compressors and condensing units—for their low cost of upkeep and economical performance.

Write us for full details or call your local Curtis representative.

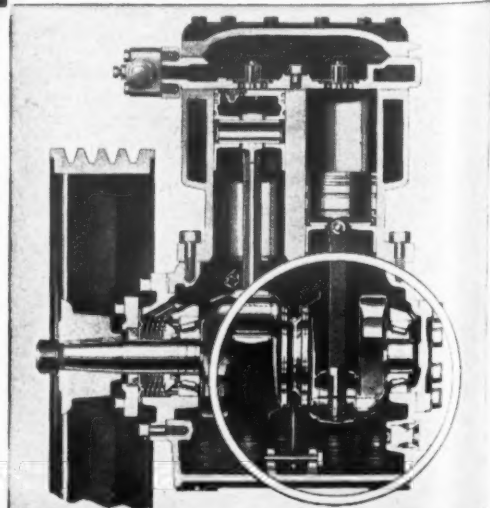


CURTIS REFRIGERATING MACHINE CO.

Division of Curtis Manufacturing Co.

1912 KIENLEN AVENUE

ST. LOUIS, MO.



CURTIS

"Builders of Condensing Units Since 1922"

Represented in Canada by
Canadian Curtis Refrigeration Co., Ltd.
20 George St., Hamilton, Ont., Can.

Importance of Good Service Department in Creating Sales and Getting Prospects Stressed at Carrier Meeting

(Continued from Page 6, Column 5)

in one step of a continuous process, such as a dairy application. Here the milk flows in a continuous path from the time it enters the dairy through the pasteurizer, the precooler, the refrigerated cooler, and into the bottling machine.

"If the refrigerated cooler breaks down, the whole process is stopped.

"Point to remember is that lack of prompt service may mean large losses of product. This product has a known value, and the loss is easily calculated in dollars and cents. You must, therefore, be prepared to offer service 24 hours a day, every day of the year.

"Your service must not only be prompt, but must be effective. You cannot afford to send a service man out two or three times to take care of one complaint, nor will your customers tolerate such treatment.

"You, therefore, must have a good service man. You cannot afford to hire a poor one."

SERVICE MEN'S QUALIFICATIONS

Qualifications of a good service man, said Mr. Goddard are:

1. He should know his business. He should be well grounded in the fundamentals of refrigeration, and should have a knowledge of motors and controls. He should be able to go about his business in a manner that will inspire confidence in the customer.

2. He should be a good mechanic. He should be able to use a wrench or hammer without breaking something.

3. He should be neat in appearance, and in actions. He is the member of your organization who will call on your customers most often. A man with dirty, torn overalls, who spills oil and leaves finger prints all over the place, is not going to be a good advertisement for you, or much help for your salesmen.

4. He must have the ability to get along with people. A man who arouses the customer's antagonism is going to cost a dealer a lot of good will—and his business is dependent upon this good will.

5. He must be enthusiastic, and proud of his job. The customer gets no pleasure from having to call a service man in the middle of the night; he probably thinks the equipment is faulty, and the service man who grumbles won't do anything to lessen his resentment.

DIVIDENDS FROM SERVICE

Emphasizing that good service men are hard to find, Mr. Goddard said that Carrier often received applications from service men anxious to connect with a Carrier dealer, and added that the company might serve as a clearing house in this respect.

Turning next to the importance of the service department in making sales easier for the dealership, Mr. Goddard asked: "Is your service department paying dividends?"

Figures don't tell the whole story, he said—if the dealer is doing the right kind of a selling job, and has the right kind of a service department.

SELL SUPERIOR SERVICE

"Instruct your salesmen to sell your superior service to their customers," he advised the dealers. "Give them material with which to sell it. They should have photographs of your service man in his nice, clean uniform, of your service truck, of your shop, with its tools, parts, and supplies.

"Those of you who are salesmen should insist that the dealers give you this ammunition. You should also prepare a little sales talk around some incident or experience which will illustrate the superiority of your service. This will sell jobs for you. And don't think that superior service will not sell jobs."

Mr. Goddard next told of how Air Comfort Corp., Chicago Carrier distributor, had been called in to service a commercial machine in one of the B/G sandwich shops, when the restaurant had been unable to obtain its regular service company. Air Comfort Corp. had not sold the equipment, but in replacing the machine

with another the restaurant had in stock, the men noticed a quantity of water, sludge, and dirt in the system which had caused the first machine to break down.

They cleaned the system out and installed a new pressure control, adjusting it so that the plant would operate on a defrosting cycle. The manager of the chain was so pleased with the plant's operation that Air Comfort now gets all of B/G's service work, replacement, and new commercial business in Chicago, without competition.

"That should show you where to look for your service department dividends," Mr. Goddard commented.

FURNISH PROSPECTS

"How else can the service department help your sales?" he asked.

"They can bring you in the best leads, leads that you or your salesmen might not get, but that are apt to result in a large percentage of sales.

"The customer who has bought a job from you wants his friends to buy from you, too—it backs up his confidence in his own judgment. He tells his friends about your equipment; they learn about it, and about you.

"The only hitch is that, as yet, you don't know about them. And the customer has been thinking it over, and wondering whether he should tell you about his friend. After all, what have you done for him? Just sold him some equipment for a lot of money. He decides to think it over a while, and maybe call you later.

"Now, your service man drops in, takes a look at the machine, just to see that everything is all right. Tells the customer to be sure and call him immediately if anything seems wrong. Says he'll be back in a couple of days, anyway.

"The owner feels better. You've done something for him didn't have to do. He wants to reciprocate—so you get your lead.

FINICKY CUSTOMERS

"What about the finicky customer? The one who always thinks something is wrong. Wants to know if the cooler isn't a little too warm, or isn't the machine a little noisy, or shouldn't the water valve be closed a little? After a few calls you almost wish you hadn't sold him. Here the attitude of the service man is particularly important.

"If he allows himself to become impatient, or stalls instead of answering questions, the owner becomes suspicious, and thinks there really is something wrong.

"Your service man will have to humor this customer for a while. If he does a good job, you will have another booster, and some good leads. If he doesn't, you have lost valuable good will.

"So the service department increases sales in two ways:

"1. The superior quality of your service creates sales, and becomes a talking point to clinch other sales.

"2. Your service department brings you in the best leads. Many dealers recognize this fact to the extent of offering a commission to the service man for sales resulting from his leads.

GETTING PROSPECTS

"Don't forget the important fact that a lot of your business can come to you through the service department. You should be watching for this business, and have your service department watching for it. If the customers do not voluntarily give leads to the service man instruct him to ask for them. If he is the right kind of a service man, friendly and diplomatic, they cannot resent it."

Even if a dealership has a superior service department, stocked with men who know how to bring in sales-producing leads, it is often made to work under a pretty heavy burden from the sales department, Mr. Goddard said. In discussing how the dealer and his salesmen can help relieve that burden, he advised:

"When the service man also does installation work, a careful survey and careful planning of the job will often save hours of his time.

"If old equipment is to be removed, building alterations are to be made,

or other trades are to assist in the installation, don't wait until your man gets on the job before making the necessary arrangements.

"Be sure to talk over with the owner all the details of construction before the installation is started. If you plan to drill through a wall or block off a window, tell the owner, so that when your man starts to work, delays resulting from misunderstandings will not be encountered.

"Be sure that your engineering is done properly. Don't substitute guesswork for engineering, in the hope

that somehow the service man will be able to make the job work right.

"If a mistake has been made, so that the equipment is not adequate or proper to do the job, try to discover and correct this condition as soon as possible. Don't let the service man waste a lot of his time nursing a sick job.

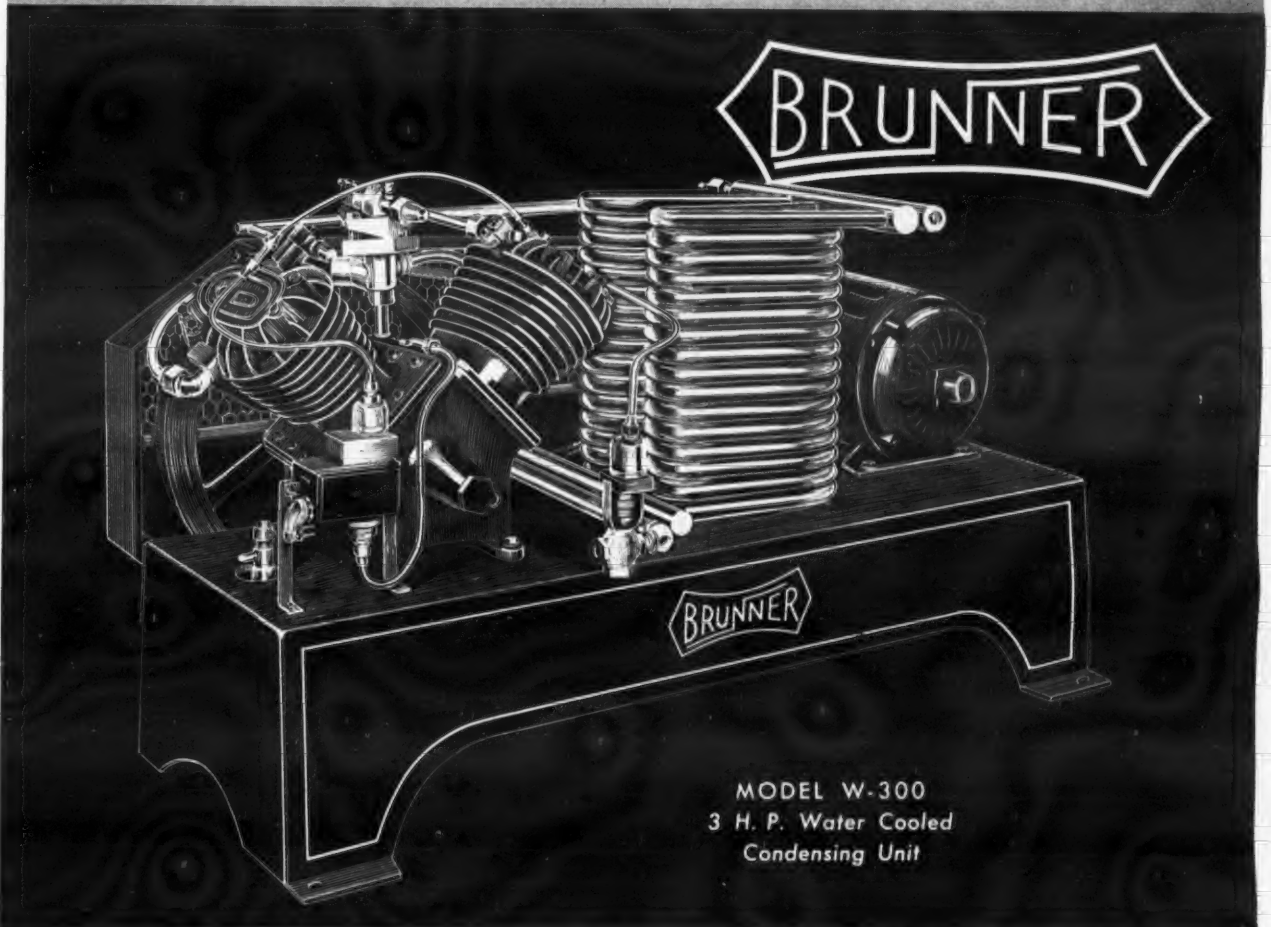
"If the job needs a larger coil, install it. You at least know what it will cost you, while the wasted time of the service man, which should be devoted to more profitable endeavors, cannot be evaluated, and may be worth a lot more.

"Don't over-sell the job. In other words, don't promise the customer more than he is getting, and don't tell him the job will do more than it is engineered to do.

"For example, the ordinary retail meat cooler job consists of a fin coil evaporator and a condensing unit. To maintain uniform temperatures day after day, it is necessary that the evaporator defrost completely every time the condensing unit shuts down. If it does not, a growing accumulation of frost will occur on the evapo-

(Concluded on Page 8, Column 1)

THE DYNAMIC BALANCE OF RECIPROCATING PARTS INSURES SMOOTH, VIBRATIONLESS OPERATION



MODEL W-300
3 H. P. Water Cooled
Condensing Unit

Balancing the opposing masses of fast-moving metal in a complicated mechanism like the modern refrigeration unit is not the product of slide-rule computation... not a run-of-the-draftingroom problem. Dynamic balance—bringing each and every moving part into "mechanical accord" with every other part—this is the outcome of tireless research, intimate knowledge of refrigeration conditions, plus years of manufacturing experience. It is embodied in today's smooth-running Brunner units... Look into this Brunner feature before you make any decision on the best equipment to install! Watch a Brunner in action. Put your hand on the sturdy base. Feel the low minimum of vibration dynamic balance achieves. Then: consider the extra years of service it is bound to deliver. You'll find full details in the new Brunner Refrigeration Catalog, listing 47 condensing units, air and water cooled, for nearly all refrigerating and air conditioning installations. Write: Brunner Manufacturing Co., Utica, N.Y., U. S. A.

BRUNNER

BUILDS FOR *Greater* DEPENDABILITY

Problems Involved in Selling Commercial Refrigeration Equipment to Food Stores And Florists Discussed by Dealers

(Concluded from Page 7, Column 5)
rator, resulting in a gradually rising cooler temperature.

"To insure complete defrosting, the cooler must rise to a certain temperature, and to prevent excess frosting during running, the cooler must not be brought to too low a temperature. Recognizing these limitations, we have standardized on a temperature range of 34 to 38° for such applications.

"This does not mean that the temperature will be maintained at a fixed level between these limits. It means that the temperature will vary between these limits. Some factor of safety has been allowed, so it will be possible to maintain between 34° and 37°, or perhaps even between 33° and 36°.

"But to get the plant to operate in this manner may require three times the normal effort from your service man. And to hold it between 33° and 35° may be impossible.

"You should, therefore, avoid any careless or inaccurate answer to a customer as to temperatures which can be maintained. Otherwise you may find that the customer has some ideas of his own on temperatures, and your service man may have to spend a lot of valuable time attempting to satisfy him.

"All of this can be summed up in one sentence: 'Don't make the service man the 'goat.' Don't waste his time.'

As a final bit of advice to dealers, Mr. Goddard declared:

"Don't neglect your service department, or let it drift. Don't consider it as a necessary evil or a mere overhead expense, to be kept as low as possible. Don't let a poor service department kill your efforts."

Decatur Dealer Advises Selling Food Stores 'From the Wall Out'

When he came to Decatur, Ill., three years ago to open a commercial refrigeration department for Field & Shorb, Ivan Robinson was told that he couldn't make a living selling only commercial equipment. But he made a living—in fact, he has just taken over the Field & Shorb commercial department as a personal business enterprise.

In a talk on "How to Sell the Meat Market," Mr. Robinson told Carrier dealers how he has put more than 300 jobs in his territory during the four years he has been working it.

At the outset, Mr. Robinson stressed the fact that very few of his sales had been strictly in the "meat market" class. Most of them, he said, would fall into the food market class, since there are few exclusive meat stores in his territory today.

He emphasized the importance of

handling a well rounded line of equipment, to be in a position to capitalize on all angles of commercial business. His company, in addition to Carrier refrigerating equipment, handles Koch cases and coolers, Temprite beer and water cooling equipment, and also builds some of its own cases.

The commercial dealer, if he is to do a volume business, must have a complete line to sell, Mr. Robinson said. His department, he added, can sell equipment to a food store "from the wall out"—coolers, cases, scales, blocks, etc.

Most new refrigerator cases mean a new compressor sale, too, he pointed out, so the commercial dealer always must carry a line of refrigerating machines. He estimated that his company at present does about 90% of the commercial business done in the Decatur, Ill., territory.

To have a complete sales department necessitates that the dealer also have a complete service department, Mr. Robinson declared. One of the principal reasons back of his department's success in the commercial field is the completeness of its service department, he added.

SERVICE SALESMEN

Field & Shorb's service men are trained as salesmen, Mr. Robinson said. In fact, the service department should be another branch of the sales department, in his opinion, for he has found that good service opens the way to many sales the dealer might otherwise never learn about until all the other dealers in the territory knew about it, too.

He stressed the importance of being able to show a prospect a job just like the one he is interested in. This personal showing, in his opinion, does more than anything else to create a favorable impression in the mind of the buyer. As a case in point, he cited one instance in which, by taking a prospect from Lincoln, Ill., to Decatur to inspect other jobs installed by the company, he succeeded in signing him to an order \$400 higher than that of his next nearest competitor.

SALE OF TRADE-INS

The company has sold 54 trade-in jobs this year, Mr. Robinson said. His method is to offer the customer to trade in the used case at its original resale price on new equipment, if the deal is made within six months or a year. No list prices are put on the used equipment.

One used case has been resold and later taken in on new equipment at least four times in the last couple of years, Mr. Robinson said.

"Don't be afraid to go back to the customer who's bought used equipment, in an effort to sell new merchandise," he advised. "We have sold several customers a new case or cooler before the first payment was

due on their used stuff. After he's had experience with used equipment, it isn't hard to sell him on the added economy and convenience of new goods."

The commercial dealer who wants to make a "real thing" of his business must be prepared to suggest new ways of making money to his customers, Mr. Robinson believes. He cited one instance in which, while stopping at a filling station for gas, he had noticed that the owner also operated a small grocery.

Noticing that there was no refrigeration equipment, he suggested to the owner the possibilities of good profits in handling lunch meats.

"We had to take out the station's front window to get the case in, but we made the sale," he concluded.

COMMERCIAL MARKET

Dealers in middle size cities who devote their efforts to air conditioning are passing up some fine profit opportunities in commercial refrigeration, Mr. Robinson insisted. In selling commercial, the dealer (or salesman) has to work out his own sales methods, he declared, pointing out that "how to sell" ideas must differ with various local conditions.

But he said he tried, whenever possible, to make a preliminary study of the prospective customer's business place before actually entering on the sale, to get an idea of what used equipment the store owner had, as well as its condition.

In general, he said, his sales policy boiled down to the following:

"Tell the customer the truth; give him what you say you will, both as to case and condensing unit. Tell the truth about used equipment, too. You can't afford not to do so. It's just good business—for if the merchant finds out that you've fooled him, he—and a lot of his business friends, too—will be 'off' you for good."

Boulware Tells of Varied Market for Commercial & Air Conditioning

The current business slump will make little difference to refrigeration and air-conditioning dealers, if they recognize the great variety of opportunities in these two fields, and measure up to them, L. R. Boulware, general manager of Carrier Corp., told dealers.

In asking for the cooperation of its field force, Mr. Boulware said that Carrier recognized that business is essentially a compromise, in which the development of a common program by the manufacturer and its dealers is necessary for success.

Recalling the saying common along the Mississippi, that "good pilots are made in times of low water," Mr. Boulware said that the industry is by no means up to its full speed on all its potentials.

"Good times or bad make little difference," he said, "if we develop intensively all our possible fields of business and profit."

This means that the dealer and salesman must see more people, and must not overlook any chance to sell.

"Don't wait until your prospective customers 'get in the market,'" he advised. "Put them 'in the market' now."

He urged a determined attack on all potential markets with well trained salesmen, properly supervised. "Your percentage of the total business will be increased," he declared, "by creative selling, by the creative, or canvassing salesman."

When business is harder to get, the merchant who displays his goods most attractively will get the most business, he pointed out in emphasizing that general business conditions made no difference in the need for commercial refrigeration equipment.

The same thing holds true of air-conditioning possibilities, he declared. When general business slackens up, the store which is able to offer the most attractive, comfortable surroundings to customers gets the major part of the available business.

St. Louis Dealer Presents Problems Involved in Florist Shops

Solving the florist's problem with commercial refrigeration equipment, H. W. Schrick, of Sears & Pious, St. Louis Carrier distributor, told the dealers, is largely a matter of minimizing the air movement within the refrigerated space.

Since profits, in the retail end of the florist business, depend to a large extent on being able to buy flowers at good prices and keep them for long periods of time, the commercial refrigeration firm who can help the florist accomplish this end is in for a good, profitable market, Mr. Schrick began.

To please his customers and get their repeat business, the retail florist's aim is to deliver cut flowers in bud form, or as near that stage as possible, he said. Any appreciable air movement within the refrigerator opens the flowers, and makes them less saleable.

HUMIDITY IMPORTANT

In furnishing refrigeration equipment for florists, the temperature is not nearly so important as are humidity and rate of air movement, Mr. Schrick said. Main idea, he declared, should be to get as much coil surface as possible, with as little air motion as possible.

The higher the moisture content inside the refrigerator, the longer the flowers will keep. Mr. Schrick said that, in one experiment he had conducted with a florist customer, flowers had been kept in good condition for as long as three weeks.

As a rule, florists have no "steady" market for their wares, he pointed out. The retail florist must obtain his flowers whenever he can, at the best possible prices. Regulating the growth of flowers is something the retail man cannot control; the flowers are cut and shipped whenever they are ready, and this often results in crowding the market with certain kinds of flowers at certain seasons.

EFFECT OF MARKET

The retail florist, he added, likes to buy his flowers when market is crowded. In this way, he can make his purchases cheaper, and come out with a longer profit—if he can keep his goods in prime condition until they are finally sold.

Flower prices are standard—that is, a dozen American Beauty roses always costs about the same, as far as the final purchaser is concerned—so the retail dealer likes to buy all he can, for as little as possible, because he'll have to sell them all for about the same prices, anyway. The lower he can buy, the more profit he stands to make.

In planning for a florist refrigerator job, Mr. Schrick advised that a cold diffuser a size larger than recommended in standard specification sheets be used, and that it be slowed down. The refrigerating machine should be matched with the capacity of the diffuser, he added. If the machine is a bit smaller than the diffuser, he said, it is better than if it were too large.

He recommended hanging the diffuser close to the door. When the door is opened, he explained, air will enter, and the moisture from it will be dropped on the diffuser, from which it will be circulated throughout the box.

Temperatures inside the refrigerator, he said, should be kept as near as possible to those in which the flowers will later be used. His company had found temperatures be-

tween 45° and 50° the most satisfactory, he declared.

"Always remember," he cautioned, "that the higher the humidity inside the refrigerator, the better the flowers will keep after they are delivered to the customer."

"The florist's reputation depends upon how well the flowers 'stand up' after they leave his shop. One good job in a town, we have found, makes a 'reputation' for you in the whole local trade."

In supplying refrigeration for wholesale florists, who stock great quantities of ferns, moss, and other fill-in materials for sprays and bouquets, the humidity problem is the same, but cabinet temperatures must be lower, Mr. Schrick said.

TEMPERATURES REQUIRED

For "spring cut" fill-in material, which usually is young and tender, a temperature range of from 32° to 35° is desirable; for "winter cut" goods, usually hardened, temperatures from 28° to 31° must be maintained, he declared.

Air motion also is important in furnishing refrigeration for the wholesale florist, Mr. Schrick pointed out. Bright lights are usually installed inside the case, to show off the flowers better—and the blossoms may be "burned" by the lamps unless air motion removes the heat.

As a final rule for the commercial dealer to follow in regulating air movement in florist cases, Mr. Schrick advised:

"If you can see the leaves or the petals move, cut down the air motion." He recommended that air velocities of from 12 to 16 f.p.m. be maintained inside the florist case, with about 95% relative humidity.

'Side Street' Markets Are Volume Builders Says Saginaw Dealer

Dealers who think only of large stores in their efforts to sell self-contained display cases are missing a big volume of business in the smaller "side street" markets—to say nothing of a nice full-price profit on this class of customer, said Ray Fischer, of J. George Fischer & Sons, Saginaw, Mich.

Getting business from the large stores in any community is valuable as a prestige builder, Mr. Fischer said, but concentrating on this type of customer to the exclusion of the small neighborhood market means passing up a field where sales are comparatively easy and profits large.

Backing up this point, he compared two sales made by his company, one to a large market, involving 12 display cases, and another to a neighborhood store, of one case. Net profit on the two sales was almost the same, he stated, in pointing out that the principal value of the large market sale, from his company's standpoint, was in the prestige it gave the firm.

GOVERNMENT SURVEY

Best sales argument to use in selling display cases, he said, is the recent governmental statistical data on food sales, which shows that, while the merchant does but 40% of his total business in perishables, these items account for 91% of his profits. On the other hand, the 60% of business done in staple items accounts for only 9% of the profits.

He urged more creative selling among dealers, especially in the smaller stores and markets.

"When a dealer comes into your showroom and prices your line of equipment, you can be fairly certain that he has done the same thing with just about every other dealer in town," he said. "By the time he comes in, every other dealer in town is in on the deal—and your chances of getting the job, at a decent profit, are none too good."

"But when you've ferreted out the customer on your own initiative, he's really yours—you're in on the deal all by yourself, and you don't have to worry about competition, with the price cutting it usually brings."

On new equipment sales involving trade-ins, Mr. Fischer said, the best move in disposing of the used equipment is to offer it to stores which, for one reason or another, cannot afford new merchandise. There are always plenty of these stores, he said.

Selling used commercial equipment is a "natural" for the salesman who is strictly a "price" seller, Mr. Fischer said he has found. Most dealers, he added, have a man of this type on their sales staffs.

DEHYDRATORS

New and Improved

GREATLY INCREASED SCREEN AREA MORE EFFICIENT • LESS RESTRICTION

These new TIME-TESTED Dehydrators have these outstanding advantages:

1. Cone-shaped screen—providing greatly increased separating area. Shape of screen causes particles to settle at base of cone, permitting free passage of refrigerant through center.
2. Pure wool packing inside cone screen—a further protection which traps dust-like particles which may penetrate screen.
3. Improved felt pad between interior cone screen and exterior flat screen.

Most dehydrating agents used in refrigerating systems are continually being sub-divided into smaller or dust-like particles. These particles restrict the taking up of moisture, or by abrasion, etc. These particles restrict the capacity of, and sometimes completely clog the disc screens and filters with which the old, or conventional, type dehydrator is equipped, resulting in pressure drop and eventual trouble at the expansion valves.

All Mueller Brass Co. Dehydrators are now provided with cone-shaped screens. This new feature, together with other improvements, provides maximum drying efficiency with minimum pressure drop. There is a right style for every purpose. Write for descriptive literature.

Stocked by leading jobbers everywhere.

MUELLER BRASS CO.

PORT HURON, MICHIGAN

STREAMLINE

TRADE MARK REG. U. S. PAT. OFFICE



PROFITABLE SALES IDEAS

Appliance Display At Oklahoma Fair Visited by 35,000

OKLAHOMA CITY—The rural electric display staged by Oklahoma Gas & Electric Co. and the Oklahoma Farmer Stockman during the eight-day state fair here, drew an estimated attendance of 35,000. Six local distributors of electrical equipment participated in the program.

All types of electrical equipment for modernizing the farm home were displayed, and a pioneer kitchen was contrasted side-by-side with a modern all-electric one. Electrical cooking equipment was demonstrated by some of the utility's home service representatives.

A booth featuring a map which showed the extent of the state's rural power lines was used as a meeting place for company representatives and prospective customers. The utility reports that this rural line map was instrumental in unearthing some 52 new prospects.

Operating displays of such electrical farm equipment as brooders, soil-heating devices, water pumps, and water heaters, also were shown.

One of the features of the display was a tent puppet show entitled "Reddy Kilowatt Goes to the Farm." Admission to this show was by tickets which could be secured only from equipment distributors at the display. Immediately after each performance, the audience was told of a high-voltage, high-frequency display in the main building.

Salesmen's Club Plans Made For Norge Men in 1938

DETROIT—Clubs and organizations will continue to play an important part in providing sales incentive for Norge men during 1938, it was made known at the recent distributor convention of Norge division, Borg-Warner Corp.

The Viking club will be enlarged and "revitalized," and the WIR club also will be continued.

In addition, a new organization, known as the "Men of the Month" club, will be formed. Each month cash awards of \$50, \$25, and \$10 will be awarded the three members of this group who hang up the highest sales marks.

A 50-unit membership qualification has been set for this club, and members must submit at least one sales idea per month to the factory.

'Wife Saver' Sale Held by California Dealer Uses Life Saving Theme

SAN FRANCISCO—"Wife Savers"—that's what Chas. Brown & Sons, local appliance and house furnishings dealer, termed the merchandise it sold during its recent "Wife Saving" sale.

Reproductions of actual "life savers" bearing the name of the good ship Chas. Brown carried the sale's nautical theme into floor and window displays, as well as into newspaper advertising. Salesmen even wore "life saver" badges.

Initial advertisement of the "Wife Saver" campaign set sail with the cry of "Ahoy There, Husbands!" Advertising copy urged husbands to be real "Wife Savers" by helping their mates cast off for the new season with a complete supply of modern appliances.

Norge Heating Equipment Shown at Auto Exhibit

DENVER—An exhibit of Norge home heating and air-conditioning equipment was staged by William Foley Heating Co., local Norge dealer, at the recent auto show here. The Foley display featured water heaters, cooling units, oil burner attachments, pressure gas burners, room conditioners, and two complete home air-conditioning units.

From its display booth the Foley company sold a \$700 air-conditioning unit, two smaller air-conditioning units, and numerous attachments for air-conditioning and heating systems already in use.

The Denver Norge office matched the Foley exhibit with a display of household refrigerators and commercial cooling units.

Georgia Power Salesmen Makes Five Sales in One Day

WARRENTON, Ga.—Five major household appliance sales in one day—that's the record hung up by B. Heywood Reese, former sales promotion man in the Augusta division of Georgia Power Co., who recently was assigned to the company's Warrenton office as domestic salesman.

Included in Mr. Reese's "big five" selling day were two 52-gallon water heaters, two electric ranges, and a 6-cu. ft. electric refrigerator.

Kelvinator Distributors Smile Their Approval of New Models



(1) Arriving for the Kelvinator distributor's conference are T. E. Chadwick of the Graybar Electric Co., Cleveland; R. H. Davison, Kelvinator east central region; and Leland B. Flint, Salt Lake City distributor. (2) Four delegates register satisfaction after inspecting one of the super-

deluxe models. Left to right: Keith Saunders, Kelvinator eastern regional manager; Frank Conboy and H. L. Coleman, Empire Gas & Electric Co., Geneva, N. Y.; A. E. Ward, Utility Management Corp., New York City. (3) Campbell Wood (center) director of public utilities for Kelvinator, talks

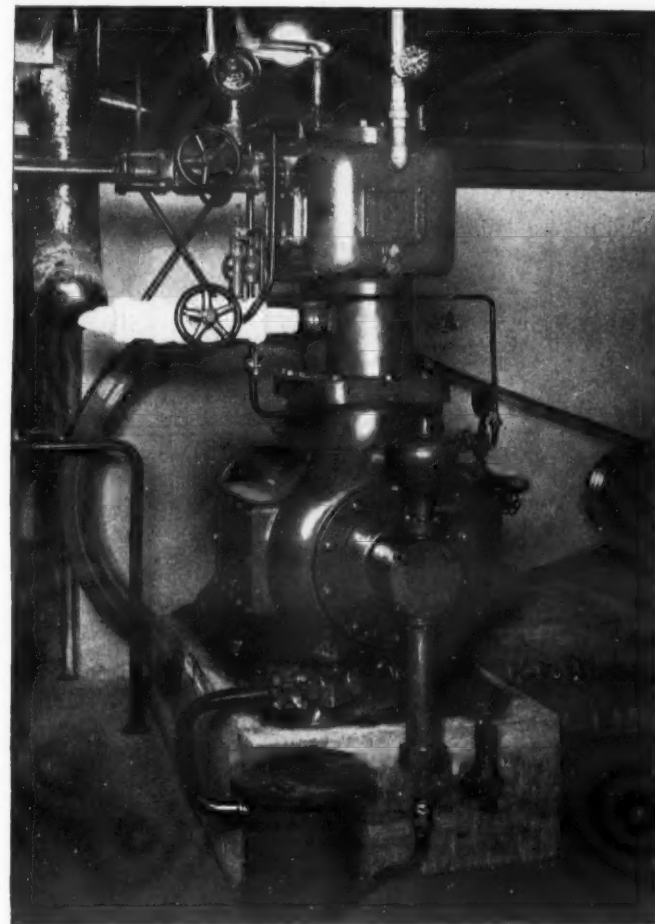
with M. Haynes (left) southeastern region, and W. B. Ellis, Jr., Duke Power Co., Greenville, S. C. (4) At the banquet table are C. F. Gaylord, C. R. Rogers Co., Pittsburgh; R. C. Cameron, Kelvinator sales manager of household appliances; and J. W. Rondel, C. R. Rogers Co., Pittsburgh.

Trade Now Specifying all 6 grades

MORE than 40 different makes of electric refrigerators are now using such refrigerants as Freon, Carrene, methyl chloride, sulfur dioxide, and others.

To meet the many different combinations in lubricating requirements, Texaco Capella Oils are now made in six viscosity grades.

Some refrigerants require oils of low viscosity while others need higher viscosity grades. All refrigerating oils must be thoroughly dehydrated, chemically stable so that they will not react with the refrigerants. Texaco Capella Oils meet these requirements. These oils come in 55-gal. drums, and resealable 5-gal., or 1-gal. refinery-sealed cans. Trained lubrication engineers are avail-



Texaco Capella Oils, ranging from 80 to 500 sec. SUV at 100 deg. F., dielectric strength of 25,000 volts, and sub-zero pour, prove their lubricating effectiveness under every condition of service.

able for consultation on the selection and application of Texaco Capella Oils. Prompt deliveries assured through 2070 warehouse plants throughout the United States.

Use Capella on your machines. Get this added assurance of better performances.

The Texas Company, 135 East 42nd St., New York City.



TEXACO



Capella Oils



56 pages of valuable information on refrigerating machinery and lubricants... the answers to many questions that come up in your work. Ask for a FREE copy today.

Triple Campaign Designed to Help Frigidaire Dealers Get Good Start on 1938 Sales

DAYTON—To get its dealers started "ahead of time" in the scramble for 1938's household refrigeration profits, Frigidaire division of General Motors Corp. has presented them with a three-sided sales and promotional campaign designed to aid them in getting the jump on Christmas and early-in-the-new-year sales.

First step of this campaign is the announcement program, consisting of newspaper ads, publicity stories, radio spot announcements, an "action" window display, a stand-up demonstration card showing cut-away views of both cabinet and "Meter-Miser," and an actual hand-operated cut-away model of the Meter-Miser mechanism.

Dealers are urged to take advantage of the new selling materials which have been prepared for them, including an announcement invitation which may be used for a special advance showing or for mailing to the store's general prospect list, the usual line folders, and a separate folder describing the three "special" models for 1938.

Salesman training aids are offered in the form of a combination training manual and selling book, and a new sound slide film which may also be used in selling prospects.

In addition the company suggests several promotional stunts which may be used to dramatize the announcement of the new Frigidaire.

For the special Christmas drive,

second step in the three-point program, Frigidaire has prepared suitable newspaper advertising, radio announcements, movie slides, outdoor poster advertising, store and window displays, price tags, folders, and mailing pieces, all of which have a definite tie-in with Christmas.

To cater to the Christmas gift trade, the company is continuing its policy of furnishing sterling silver medallions for attachment to gift boxes, and of supplying large cellophane bags and Christmas ribbon in which to wrap the gift refrigerators for delivery.

In addition, Frigidaire has special Christmas advertising in the December issues of Woman's Home Companion and Good Housekeeping, and in the Dec. 11 issues of Collier's and Saturday Evening Post. Dealers are urged to capitalize on this opportunity by obtaining copies of these magazines and sending them to "hot" prospects along with a personal sales letter.

Last leg of this promotional campaign is intended to keep sales high between Christmas and the time of the company's spring convention. This part of the program consists largely of an elaboration and intensification of previous selling methods, with particular emphasis placed on the sales potential of unsold Christmas prospects, and the new prospects who may be obtained from satisfied Christmas purchasers.

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No Recession in Air Conditioning

DECEMBER is a month in which trade paper editors are besieged with questionnaires from advertising agencies, research organizations, and sales managers—all wanting voluminous statistical data to serve as a basis for predictions on the course of business for the coming year.

Budgets must be made up, appropriations made, campaigns planned, materials purchased, talent contracted. Those who do this thinking ahead want the help of all the professional pulse-feelers and ears-to-the-grounders they can contact.

This year, one hears, most of the soothsayers are being cagey. A business "recession" is in progress, and the prognosticators don't want to be caught with their trousers missing as they were in December, 1929.

Refrigeration Men

Pooh-pooh the 'Recession'

It is the highly enviable position of a reporter in this industry, however, to find the business men he contacts still optimistic. Refrigeration successfully defied the last depression, and most people believe that, having been toughened by that battle, the industry will find the present "recession" scarcely a fit adversary.

In proof of this contention, it should be noted that those who spend important money in this industry—the men who make appropriations for new factories, materials and supplies, and advertising—are going right ahead with more ambitious programs than ever, thumbing their noses at fears of business deflation.

Crosley has just completed a very large, highly modern new factory in Richmond, Indiana. Frigidaire, General Electric, and Westinghouse—to name but a few—have all expanded production facilities in anticipation of increased demand in 1938. Advertis-

ing appropriations have been increased; large stocks of materials are being acquired and stored. Factories are running.

And it is true that never before in the history of the industry has merchandising and executive talent been at such a premium, been competed for so hotly, or rewarded so amply.

Air-Conditioning Sales

Expected to Rise in 1938

Air conditioning? Like John Paul Jones, it has "just begun to fight." No less an authority than William B. Henderson, executive vice president of the Air Conditioning Manufacturers' Association, is publicly declaring that air-conditioning sales will increase so notably in 1938 that suppliers of material and labor all over the United States will benefit substantially.

Mr. Henderson points out that the air-conditioning industry is planning especial expansion into two important sales fields: (1) the home, and (2) small business establishments. Its bait for these prospects will be the comparatively low-priced, line-produced unit air conditioner.

ACMA Members Collect

\$85,000,000 in 1937

The industry attained new highs in 1937. Installed cost of equipment sold by the members of the Air Conditioning Manufacturers' Association exceeded an estimated total of \$85,000,000, compared to \$50,000,000 in 1936. The association's member companies sell over 90% of the equipment used in the United States for true, year-around air conditioning.

Sales to restaurants, hotels, night clubs, hospitals, department stores, and large commercial and industrial establishments helped to produce the association's record total in 1937.

Unitized equipment now being made for the first time in quantities gives promise of further advancement of the industry by expansion on a large scale into both old and new homes and among the vast number of smaller stores, restaurants, office suites, and other establishments which have thus far been comparatively insignificant factors in the industry's rapidly rising sales curve.

Helps Take Up Slack

In Construction Industry

During a period when construction was relatively inactive, work of modernizing large commercial and industrial buildings with air conditioning produced nation-wide distribution of millions of dollars in labor payroll expenditures. Production activities of this new industry are highly decentralized. Equipment cost is the lesser part of an investment in which the major expenditures go for materials and labor at the scene of the installation.

Thus, expansion of the industry's volume of big installations in 1938 means spending in which 20 to 30 lines of skilled labor in all parts of the country will share.

The wide applicability of air conditioning, for numberless business and industrial uses, is the industry's greatest stabilizer. Its progress has been aided, as well, by the growing realization that air conditioning levels out manufacturing and selling peaks and valleys, as well as those jagged variations in the weather charts.

Air Conditioning Seen As 'Business Insurance'

Air conditioning is recognized as "business insurance" of a kind that will increasingly become an asset to its owner through whatever forms trade rivalry and economic conditions may take in the coming years.

By the progressive purchase of unit air conditioners, the manager of an old office building, for example, can compete with the newer, completely air-conditioned office structures. Whereas he might have expected to lose the tenants of his inner offices when summer came, he now can keep them—and charge just as much as he would for corner, cross-ventilated offices.

The American public, moreover, is fast becoming convinced that there is no good reason why it need suffer the extremes of temperature that mark the summers in practically all parts of our country, any more than it need endure the personal and business handicaps of winter.

Refrigeration, Air Conditioning Are 'Favored Industries'

The industry appears to be set for a year of countrywide progress.

As E. T. Murphy, Carrier vice president, told 135 Carrier dealers and salesmen in Chicago last week: "refrigeration and air conditioning, we believe, are favored industries, and will not be much affected by the current business slump."

LETTERS

Studying the Trend

Frigidaire Division
General Motors Sales Corp.
Dayton, Ohio

Nov. 30, 1937

Editor:

We are very much interested at this time in checking the opinions of those close to the trade, such as yourself, as to what you think, based on your observations and contacts, the sales of electric refrigerators, ranges, and washing machines will be for 1938.

If you have any information from the actual unit standpoint, we would appreciate receiving that. But what we are more interested in than anything else is in getting your estimates, based on your experience, as to the percent of increase you think will be shown on each of the above-mentioned appliances in 1938 over 1937.

Now, as to refrigerators specifically, as you know, most of the leading manufacturers have introduced their new models this fall, how do you think this will affect the sales curve, by months, for the early periods of next year, when you remember that most of the major manufacturers introduced their new models in late December of last year or January of this year?

Any information and opinions you can give us, based on your experience and intimate knowledge of the people you serve, will be greatly appreciated.

W. F. SWITZER, Manager,
Marketing & Organization Dept.

Answer: See editorial on this page.

Forbes Gives 'Statement Of Policy' for Jobbers

California Refrigerator Co.
1077 Mission St.
San Francisco, Calif.

Publisher:

We are enclosing Kerotest bulletin No. 44 and also a copy of our letter to Mr. Forbes and we believe it is "news" and of interest to everybody in the refrigeration business to read this very statement of policy for a refrigeration jobber.

May I take this opportunity to thank you on behalf of our entire organization for your most wonderful editorial about the refrigeration jobber in the Nov. 24 edition of AIR CONDITIONING AND REFRIGERATION NEWS.
CLARENCE F. (SANDY) PRATT,
President.

California Refrigerator Co.
San Francisco, Calif.

Kerotest Mfg. Co.,
2525 Liberty Ave.,
Pittsburgh, Pa.
Attention: J. S. Forbes

We have your Kerotest Bulletin No. 44 on the functions of a qualified refrigeration jobber. We are taking the liberty of sending it on to the REFRIGERATION NEWS so that the whole refrigeration world will read it.

It is the best argument for the existence of the refrigeration jobber that has ever been written.

Mr. Rauch, our engineer, and I were told at the Chicago convention that 37% of the manufacturers felt like the refrigeration jobber was a fifth wheel and absolutely not needed. You have answered the question in a wonderful way and if the REFRIGERATION NEWS will publish your definition it will correct the viewpoint of many of the 37% mis-guided manufacturers.

Of course, some of these 37% of manufacturers are influenced by the fact that they are very friendly to some concerns whose financial interests are opposed to the method of selling through the refrigeration jobber.

CLARENCE F. (SANDY) PRATT,
President.

Kerotest Bulletin No. 44

Subject: The Functions of a Qualified Refrigeration Parts and Supplies Jobber.

Recently our assistance was sought by a substantial mid-west refrigeration parts and supplies jobber, to prepare a circular letter addressed to his prospective trade or to edit his effort to make his position clear; in brief, a definite "statement of policy" on which this jobber expected to build his business.

Upon showing copy of our suggestions to his advertising agency, several of his trade, and friendly competitors, he advised us that our phraseology so capably states the situation and made such a favorable impression, that he intends using it without change.

Thinking that you too might be interested in such a definite "statement of policy," we repeat this suggestion, as follows:

"Why it is to your interest to deal with legitimate Refrigeration Parts and Supplies Jobbers:

"(1) As your local Refrigeration Supplies Jobber, we carry adequate stocks of almost every conceivable item required to properly install and service domestic and commercial mechanical refrigeration and air-conditioning equipment. This releases your capital from unnecessary inventory, and makes it available for you to properly finance your business, and prevents duplication of inventories in the hands of every local dealer, distributor, and service organization—a condition that would be necessary were not the local jobber to carry a centralized stock.

"(2) Our business is to provide you with a ready supply of fresh, up-to-date merchandise, whether for normal requirements or emergencies, advise you of the capacities and functions of new equipment when introduced on the market by our manufacturing sources of supply, and to extend a helpful, courteous and efficient service to you at all times.

"(3) To help you dealers, distributors, and service organizations to build your business on a sound, progressive basis, to the end that all of us will be recognized as having a useful purpose to fulfill in the mechanical refrigeration industry.

"(4) To generally promote the use of mechanical refrigeration for health, human comfort, and scientific purposes. We consider it harmful to your interest if we compete with you in the sale, installation, or service of mechanical refrigeration, whereby we control your source of supply and where we could use our wholesale prices to under-bid you. We are not your competitors.

"(5) On "this platform" we solicit your cooperation and an opportunity to serve your requirements of refrigeration parts and supplies."

About Xylene

Charleston Electrical Supply Co.
Charleston, W. Va.

Dec. 7, 1937

Editor:

I read with great interest your article in the Nov. 17 issue of AIR CONDITIONING AND REFRIGERATION NEWS, regarding Xylene, the new cleansing agent for "stuck-up" refrigeration systems. I would like very much to know where this agent can be procured and also its approximate cost.

J. P. BURNELL, Service Mgr.

Answer: See below.

F. H. Langsenkamp Co.
Indianapolis, Ind.

Nov. 29, 1937

Editor:

In a recent issue of the News you mentioned Xylene.

I would appreciate your advising

me who manufactures this product.

F. LANGSENKAMP, Jr.,
Treasurer.

Answer: Xylene is prepared by Merck & Co., Inc., Rahway, N. J. For further discussion on the use of Xylene in refrigerating systems, see page 14 of this issue.

The Industry's Ups . . .

Carolina Sales Corp.
Sales Engineering Division
810 Odd Fellows Bldg.
Raleigh, N. C.

Nov. 29, 1937

Air Conditioning Editor:
We have followed your articles on air conditioning very closely, in fact we are using these articles somewhat as our authority in the air-conditioning field here. Although we are sure that you did not intend them for such use we have whipped competition in several instances by their use. Thanks for the help.

We believe that we have one of the best potential markets for air conditioning in the entire country. Climatic conditions demand it, and although it is coming along slow, it is sure and we are beginning to feel that success is only waiting for the current "recession" to subside.

We have built up what we believe is the most complete air-conditioning organization of all Kelvinator distributors. In addition to myself we have three sales engineers and a complete construction crew, all well trained, and what is more, well paid. All of our men work on a straight salary and expense basis.

Strange to say we have managed to keep in the black all during the past three years, although the "black" is nothing to shout from the rooftops. We have high hopes of cashing in during 1938—if.

We base our sales strategy entirely on confidence and ability, particularly directed at architects and engineers. Part of this strategy is our willingness to talk at gatherings of these professions. Air conditioning being a new field we are kept fairly busy at this chore alone.

Speaking of weather—I saw Pitt and Duke play and although it rained the Friday night before the game I sat in my shirt sleeves during the entire game. How about paying us a visit.

ROY E. CAWHERN

. . . And Downs

26 v. Hogenhoucklaan
The Hague, Holland

Nov. 10, 1937

Publisher:

Having lost all my money in the refrigeration business and now, having left that business, I am sorry not to be able to continue subscription of your smart paper of which I have been about 8 years a subscriber.

W. J. VAN WULFFTEN PALTHE

'Keen Analysis of Conditions'

Consumers Power Co.
Grand Rapids, Mich.

Sirs:

Your records will show that the writer has been a regular subscriber to REFRIGERATION NEWS for a number of years and a great deal of satisfaction is derived from the educational and news features.

The editorials on problems of the industry are particularly timely and show a very keen analysis of conditions and suggestions for improvements which will benefit everyone engaged in the business. Keep up the good work.

H. W. SUMMERS,
Mgr., Commercial Refrigeration.

Liked Apple Storage Articles

McCray Refrigerator Co.
Kendallville, Ind.

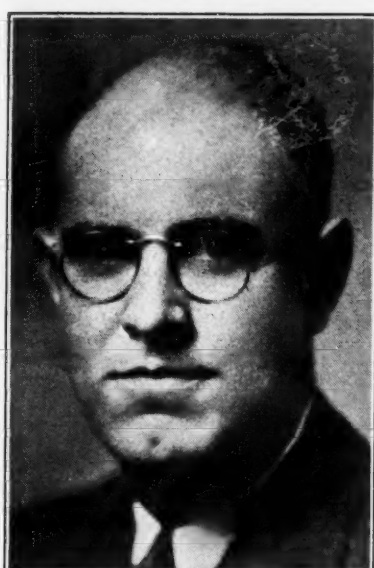
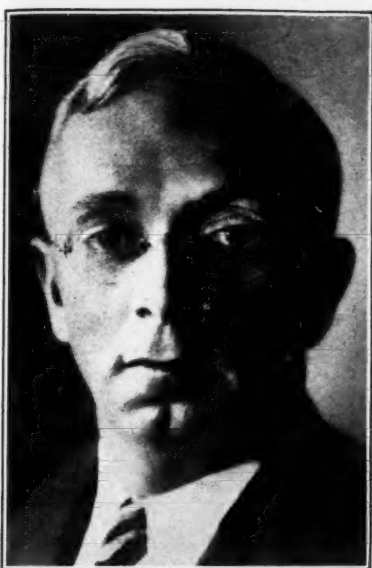
Sirs:

We are interested in the first of two articles written by C. G. McLaughlin on the subject of apple storage construction and refrigeration described. We have the second item in this series which was published in the June 9 edition of AIR CONDITIONING AND REFRIGERATION NEWS. We are now interested in securing a copy of the first article written by Mr. McLaughlin.

If it is at all possible, we would like to have a copy of the June 2 edition of AIR CONDITIONING AND REFRIGERATION NEWS. If you have such a copy, please forward it to us so we may have the first of these articles on apple storage.

HARRISON STRANG,
Sales Engineering.

They Figure in Frigidaire Appointments



(Left) E. L. Williams has just been appointed manager of the Los Angeles district for Frigidaire division of General Motors Corp. (Right) Fred M. Davison has been named to head operations at Frigidaire's newly created branch in Nashville, Tenn.

Williams to Manage Los Angeles District Sales for Frigidaire

LOS ANGELES—E. L. Williams, Pacific regional household sales manager of Frigidaire division, General Motors Sales Corp., has been appointed manager of the company's Los Angeles district and has established headquarters at the Frigidaire branch here, according to an announcement by R. G. Hutchison, regional manager.

Mr. Williams' first association with the appliance industry was with Meter-Ice Corp. of which he became sales manager. He later joined Frigidaire's department and furniture store supervisory staff, and finally became regional household sales manager on the Pacific coast.

English-born, Mr. Williams came to the United States at the age of 14 to become a cash boy in the Daniels & Fisher store in Denver. Later he became a Royal Canadian Northwest Mounted Policeman, court reporter, automobile salesman, dealer, and branch sales manager.

Boyd, Porosky and Caron Join Advertising Staff Of Kelvinator

DETROIT—John Boyd, Walter M. Porosky, and John H. Caron have joined Kelvinator's advertising and sales promotion staff, according to announcement by Sam C. Mitchell, director of advertising and sales promotion for Kelvinator division, Nash-Kelvinator Corp.

Mr. Caron was formerly a member of the Detroit advertising firm of Aarons, Sill & Caron, Inc., and before that did copy and contact work for five years with Brook, Smith & French, Inc. Mr. Caron's earlier experience included four years as assistant advertising manager for Chrysler Corp., and advertising manager for Will Ste. Claire, Inc.

Mr. Porosky is well known for his work as consultant on business correspondence and marketing research work for various commercial firms. He has also written, directed, and sold radio programs for three Detroit broadcasting stations, and comes to Kelvinator after serving for eight years as professor of salesmanship, marketing, and advertising at the Detroit Institute of Technology.

Mr. Boyd joins Kelvinator direct from the advertising agency of Geyer, Cornell & Newell, where he did copy and contact work for 10 years largely on refrigeration accounts.

\$3,000,000 in Orders Placed at Stewart-Warner Meeting By Distributors

CHICAGO—Orders for \$3,000,000 worth of new 1938 refrigerators were booked by Stewart-Warner Corp. during its national convention of refrigerator distributors here Nov. 11 and 12, it was announced by J. E. Otis, Jr., president. The volume of orders is approximately double that placed during the 1936 meeting.

3 More Utilities Sign EH&FA Contracts

WASHINGTON, D. C.—Contracts providing for cooperative financing of major electrical appliances have been signed by Electric Home and Farm Authority with three more utilities.

These utilities are: Southside Electric Cooperative, Blackstone, Va.; Shenandoah Valley Electric Cooperative, Harrisonburg, Va.; Loup River Public Power District, Columbus, Neb.

A newly revised list of all territories in which E.H.&F.A.'s financing facilities are available has just been issued. Of the cooperating utilities included in this list, 51 are municipally owned, 21 are privately owned, and 26 come under the heading of electric power associations and co-operatives.

5,554 Refrigerators Sold In Florida Campaign

MIAMI, Fla.—Sales of household appliances resulting from Florida Power & Light Co.'s "Better Living Campaign," extending from June 7 through Sept. 4, in which dealers throughout the state participated, have been announced by the utility as follows:

Electric refrigerators—5,554; electric ranges—1,437; electric water heaters—611; electric dishwashers—20; electric roasters—257; electric washers—950; electric ironers—149; air cooling units—33; home ventilating units—69.

Standard Statistics Co. Predicts Decrease in 1938 Savings

NEW YORK CITY—Earnings of household appliances in the early months of 1938 are expected to be below those of 1937, according to "Standard Trade and Securities," a publication of Standard Statistics Co.

1937 final quarter profits of most companies in the field should be better than those of the third quarter, the paper states, and the majority of the companies should report increased net profits for the full year, largely because of the favorable first half.

Profits of the second half of 1937 probably will be below those of the corresponding period of 1936. Reasons are the lack of artificial stimulus to replace the 1936 soldiers' bonus, the trend away from instalment buying caused by the labor strikes, hesitation in residential building, and general uncertainty over the sharp slump in securities and the downtrend in business as a whole.

These factors will carry over into the early months of next year, the paper believes, although they may be offset by the higher level of consumer buying power created by greater farm income and increased wage rates in 1937.

Insulation Sales Meetings Held in Key Cities

BALTIMORE—Oliver P. Harris, sales manager of the insulation division of Standard Lime & Stone Co., has just finished conducting a series of merchandising meetings held in key cities throughout the east, south, and midwest for the benefit of executives, sales managers, and salesmen of dealer organizations in these districts.

District Representatives J. M. Daffron, R. C. Powell, C. L. Reier, C. A. Hechter, A. M. Norton, E. E. Kresge, and G. O. Rovick, assisted Mr. Harris in their respective territories.

The one-day meetings were devoted entirely to merchandising plans and sales instruction. Principal themes discussed by Mr. Harris were: "How to create a desire for the product," "How to handle objections," and "How to close the maximum number of sales in the shortest period of time."

Glendale Bars Range Sales By Municipal Public Service Department

GLENDALE, Calif.—Sale of electric ranges by the municipal public service department in competition with private enterprises will be ordered discontinued, it is indicated by a recent 4 to 1 vote in which the city council decided to take action in ending a drawn-out fight.

Local electrical appliance dealers threatened to circulate petitions for a special election to decide the issue, whereupon the city council instructed City Manager Ingham to work out a plan providing for the elimination of the sale of ranges by the municipal department.



COOL DRINKING WATER REGARDLESS OF INLET TEMPERATURE

No matter how high the inlet temperature, Temprite Multiple System of instantaneous coolers will provide cool drinking water.

Water is cooled instantaneously at the bubbler, not in the basement. The refrigerant acts directly on the water coil, and maintains the outlet temperature for which the bubbler is set, no matter how high inlet temperature rises, and regardless of amount of water drawn.

Cold water circulating lines—with their expense for installation, insulation, and line losses are eliminated.

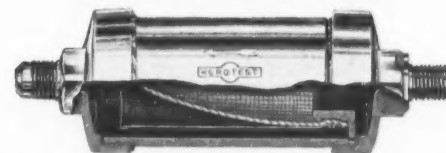
Write for Bulletin W-2.

TEMPRITE PRODUCTS CORP. *Detroit, Mich.*

MILESTONES of KEROTEST PROGRESS during 1937

Filter Out Future Trouble With the New KEROTEST

TYPE 901 LIQUID FILTER



A BOON TO TROUBLE-FREE REFRIGERATION FLOW... combines the double filtering action of an asbestos sack and a fine 100 mesh bronze screen. The liquid refrigerant first passes through the asbestos sack and then the screen, effecting a very efficient filtering service. It's most convenient to clean too, as the End Flange is removable assuring quick and easy access to the Strainer Assembly at all times.

The Kerotest Type 901 Liquid Filter is made in a large variety of pipe and flare sizes and is one of many new Kerotest products readily available through Kerotest Jobbers in every important industrial center.

KEROTEST MANUFACTURING COMPANY
PITTSBURGH, PA.

KEROTEST

TIME MARCHES ON...
So does Kerotest!

MAJOR APPLIANCES

Georgia Power Sells 17,145 Appliances In 10 Months

ATLANTA—Aided by increased October sales of electric refrigerators and water heaters, sales of major household appliances by Georgia Power Co. during the first 10 months of this year rose 2,155 units above those for the same period of last year. Range, refrigerator, and water heater sales through October totaled 17,145, against 14,990 through October, 1936.

Refrigerator and water heater sales were chief contributors to this year's 10-month sales rise. Sales of electric refrigerators for the period totaled 8,330, compared to 6,144 for the first 10 months of last year, and water heater sales were 3,331 units, against 3,174 for the same period of 1936.

Electric range sales were slightly below their 1936 mark at the end of October, this year's total being 5,484 units, compared with 5,672 units at the same time last year. Washer and ironer sales also were up over their 1936 totals, the washer mark being 1,580 units, compared with 1,193 for the same period last year, and the ironer total standing at 326 units, against 294 through October, 1936.

Commercial sales by the company totaled \$31,558.72 in October, to bring the total for the 10 months of this year to \$416,101.36. The month's sales included \$3,336.37 worth of air-conditioning equipment, \$9,928.69 worth of commercial heating equipment, and \$5,290.07 worth of water pumps.

Total for the year tabulated so far shows sales of \$227,566.92 worth of commercial refrigeration and water cooling equipment, \$20,631.98 worth of ventilating equipment, and \$29,377.05 worth of air-conditioning equipment. Commercial water heating sales for the year so far total \$13,051.15.

Commonwealth Edison Give Employees 5% On Range Leads

CHICAGO—Commonwealth Edison Co. is offering its employees 5% commission for leads which result in sales of electric ranges, and six months' free trial of an electric range if they live in a one, two, or three-family dwelling in Chicago. These offers went into effect Dec. 1.

Trial ranges, which may be any model Hotpoint or Westinghouse regularly sold by Commonwealth Edison stores, are installed without charge unless special conditions entail an expense greater than the customary installation allowance.

FREE TRIAL PLAN

Employees deciding to purchase the trial ranges within the six-month period will receive the usual employee discount. If employees decide to return the ranges after the trial, company service men will remove them, reinstall the old ranges, and return the trial models to the stores.

For employees who take a range on trial, keep it, and move to another residence within two years, the company will arrange to transfer the range to the new home free of charge, provided no special wiring is necessary.

HOME SERVICE TIE-IN

The offer of 5% commission on sales leads is part of the Commonwealth Edison range campaign. Names and addresses of prospects, who must not be employees of the company, are filled out in quadruplicate on printed forms distributed by department chief clerks, and three copies are sent to the manager of merchandise sales.

As a complementary service, the company's home service division is giving demonstrations of electric range cooking in the new conference room in the Edison building.

Crosley Executives Get a Nice Train Ride When Visiting New Plant



(1) A Crosley executive's lineup on the special train on the way to see the new plant at Richmond, Ind., during the recent convention at the factory. Facing the camera in the foreground are Ramey Field, director, and Powell Crosley, Jr., president.

In the background are Fielding Robinson, manager, Crosley Distributing Corp., New York City; and Powell Crosley, III, vice president. In the foreground, with back to camera, are Charles R. D'Olive, vice president in charge of refrigeration; and Lewis

Crosley, executive vice president. (2) Lewis Crosley and Charles D'Olive in an informal moment on the train. (3) Mr. D'Olive receives one of the lucky numbers from John Hope, Jr., credit manager, and gets a door prize at the new Crosley Richmond plant.

Brooklyn Association Drafts Schedule of Radio Trade-Ins

BROOKLYN—The fair trade committee of the Electrical Appliance Dealers Association of Brooklyn, Inc., has suggested a schedule of trade-in values for radio sets, which is being submitted to association members for their study and comments.

In making up the trade-in schedule, the committee reported, it has attempted to arrive at a formula that will be fair to the public, the retail dealer, the distributor, and the manufacturer.

Tentative present schedule provides that the maximum trade-in value should be 50% of the manufacturer's original list price for the first year after its production. After that, the schedule would be as follows:

Second year, 42½% of original list price; third year, 35%; fourth year, 25%; and fifth year, 15%.

After the fifth year, the committee believes, sets have no realizable value, and \$10 should be the maximum allowance on any such set.

The schedule may be materially changed, the committee points out, after the various interests have voiced their opinions as to the tentative suggestion. Also, it is anticipated that revisions may be adopted following future changes or improvements in the radio art.

Suggested valuations would be the highest that could be allowed on sets that were in normal condition for their age, and would be graded down if the sets were in sub-normal condition.

Schedules to be finally adopted as a trade regulation arrangement could then be incorporated by each manufacturer as part of his fair trade agreement. To make it convenient to apply the schedule, the committee is compiling a "blue book" listing all sets and model numbers that have been on the market that have trade-in values. This list will give the original price and the legitimate trade-in value at each subsequent year.

Attorneys of distributor members of the association are to meet with William H. Ingersoll and Dr. Crichton Clarke of the main committee, to iron out differences, so that no conflicting advice will be given the various companies. The Federal Trade Commission also is being asked to send a representative, so that no question will arise later as to the legality or purpose of the proceeding.

Stoker Sales Drop 2,167 Units in October

WASHINGTON, D. C.—Sales of mechanical stokers in the market formed by residences and small apartment houses during October totaled 14,492, a drop of 2,167 from the October, 1936, total, according to a report issued by William L. Austin, U. S. Bureau of Census.

Figures are based on information given by 69 manufacturers of stokers of less than 61 lbs. per hour capacity and 45 manufacturers of stokers of capacities ranging between 61 and 100 lbs. per hour. These manufacturers comprise about 95% of the total stoker output volume.

Comparative figures for the first 10 months of 1937 and 1936 show that sales of stokers have increased from 63,622 to 78,543.

Crosley Gas Range Sales Promotion Plans Aimed At Refrigerator Users

CINCINNATI—To spur early sales of its new line of "Mystic Oven" gas ranges, Crosley Radio Corp. is inaugurating a "Next Step" campaign, directed at present owners of Crosley refrigerators as the most logical prospects for improved cooking equipment, as companion products.

The "Next Step" campaign consists of three attractive direct mail pieces, which will be mailed direct from factory to prospect. All the dealer need do is tabulate the list of Crosley refrigerator owners in his territory.

Mailing pieces will be imprinted with the dealer's name and address. It is expected the campaign will assist in establishment of consumer acceptance right in the dealer's neighborhood, where it counts most, in addition to having the extra punch of a specific sales offer.

A second plan designed to be used in introducing the new gas range line is the "Crosley Progressive Sales Plan," a special direct-mail drive directed at users of Crosley refrigerators whose accounts are still open. The plan also may be used in connection with the "Next Step" drive.

Through arrangements with C.I.T. Corp., Crosley refrigerator users whose accounts are in good standing and who have made at least six payments can be sold a gas range without a down payment, price of the range being added to the open refrigerator account.

This same "add-on" arrangement can be used by the dealer to apply on radios.

G-E Has \$5,000 Sales Contest on Ranges & Water Heaters

CLEVELAND—An electric range sales contest called the "Last Quarter Push," with prizes amounting to \$5,000, is now being staged in the range and water heater sales section of General Electric Co.

Presented to the distributors at their November convention here by J. F. McBride, advertising and sales promotion manager of the section, the contest is in the nature of a football game, with each distributor appointing a "quarterback" to manage the campaign, and with three different "plans of attack" outlined in a special Last Quarter Push Booklet.

EIGHT DISTRIBUTOR PRIZES

The contest extends through November and December, and prizes will be awarded to the eight distributors showing the greatest percentage increase of quota realization for those two months over the quota realization as of Sept. 30. However, in no case will a prize be awarded unless the quota realization is 75% or more.

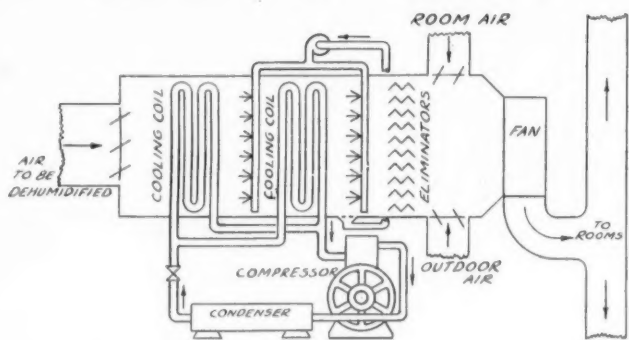
Quota realization of Sept. 30 is based on distributors' purchases from the General Electric Co.

Quota realization for the period of the contest will be based on distributors' sales.

Division of prize money within the winning distributor organizations is to be made independently.

Prizes are: first, \$1,000; second, \$950; third, \$850; fourth, \$750; fifth, \$600; sixth, \$500; seventh, \$250; eighth, \$100.

ECONOMICAL AIR CONDITIONING FOR HOT DRY CLIMATE



THIS air conditioning system (*) which may be controlled manually or automatically is very desirable from an operating viewpoint in all parts of the country where a hot dry condition of the air is found.

The dehumidified air may be augmented by outside air and artificial reheating eliminated or, at times when outside air conditions are favorable, all outside air may be circulated and refrigeration eliminated.

The addition of a fresh air connection to the dehumidifier outlet will be advantageous in any climate as there are many days when the exclusive use of outdoor air is adequate to take care of normal indoor loads.

Application and details of this system may be obtained from our licensees as well as data on many other systems of Auditorium Conditioning Corporation.

LICENSEES

American Blower Corp.
Detroit, Mich.

Buffalo Forge Co.
Buffalo, N. Y.

Carrier Corp.
Syracuse, N. Y.

Frick Co.
Waynesboro, Pa.

General Electric Co.
Schenectady, N. Y.

J. O. Ross Engineering Corp.
New York, N. Y.

The Cooling & Air
Conditioning Corp.

Division of B. F. Sturtevant Co.
Hyde Park, Boston, Mass.

Westinghouse Electric &
Manufacturing Company
East Pittsburgh, Pa.

York Ice Machinery Corp.
York, Pa.

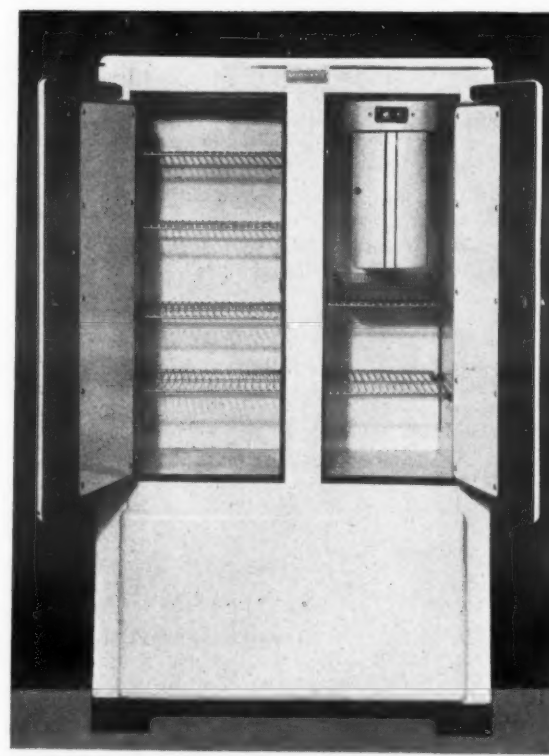
(*) Auditorium Air Conditioning Systems are covered by many issued patents and pending applications.

AUDITORIUM CONDITIONING CORPORATION

New York Office — 17 EAST 42ND STREET

NEW '38 MODELS

"Built by MIDWEST"



"138"

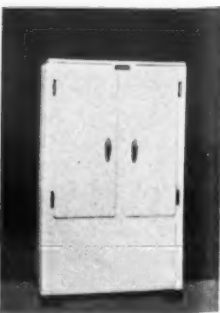
NET—13.5 CU. FT.

"168"

NET—16 CU. FT.

"198"

NET—19.5 CU. FT.



OUTSTANDING FEATURES—LOW PRICES

- BONDORIZED — DULUX EXTERIOR • PORCELAIN INTERIOR
- STREAMLINED STYLING • "HUMIDI-PAK" EVAPORATORS
- TOUCH-OPERATION LOCKS • BALSAM WOOL INSULATION
- IDEAL SIZES FOR CLUBS, TAVERNS, LARGE HOMES, FRATERNITY AND SORORITY HOUSES, ETC.

(DELIVERY ON 1938 MODELS JANUARY 15TH)

MIDWEST MFG. COMPANY, Galesburg, Ill.
SUCCESSOR TO MIDWEST STAMPING & ENAMELING CO.

Universal Cooler Deluxe Model



The 1938 Universal Cooler deluxe models, as shown here, include a host of convenience features, including two storage drawers, two covered containers, a dish and water bottle set, and the utility basket on the door. A new feature is the control panel above the evaporator door, on which are located an illuminated thermometer and control dial, and control knob.

'Use' Features Added to Universal Cooler Models for 1938; Compressor Redesigned

(Concluded from Page 1, Column 5)

ers were taking on private brand merchandise to compete with chain store and mail order business.

A dealer handbook designed to answer most of the questions that might come up for a dealer contemplating taking on the Universal Cooler line, or who had already signed up for a franchise, was presented by O. E. Eastman, advertising manager.

He also exhibited sales aids which are designed for use by dealers, including a large, descriptive two-color booklet, profusely illustrated; and rotogravure handout folders and envelope enclosures. Another sales help shown was a sales training manual, describing the new 1938 line and explaining the technique of selling it effectively.

Others who spoke at the sales

meeting included C. E. Costain, treasurer; C. L. Cardwell, credit manager; John Higgins of Commercial Credit Co.; W. W. Higham, chief engineer; H. L. Morrison, service manager; A. L. Goldsmith, chief inspector; W. A. Devlin, director of quality; E. G. Haight of the service department; and Charles Thomas of Leonard Refrigerator Co.

All but the 7-cubic foot models in the new line use the improved Universal Cooler single-cylinder compressor.

Probably the major change in the compressor is the fact that the cylinder block and crankcase are cast in one piece, this being said to assure more uniform machining and alignment over the previous type of construction, in which the cylinder block was bolted onto the crankcase body. Better control of piston clearances

is another result of this type construction, it is claimed.

A ringless piston, having three oil grooves, is another change. The oil grooves pick up oil which is splashed up from the crankcase and lubricates the cylinder walls.

The piston has a lapped finish, and the cylinder is honed. Because of this, less break-in running time is needed, it is said.

One of the new design features in the compressor is the inclusion of an oil deflector which separates the oil from the refrigerant gas in the suction chamber, and is therefore said to greatly reduce the amount of oil carried through the system.

A flapper-type suction valve is being used in the new unit, and refinements have been made in construction of compressor valves and compressor valve parts, so that they operate more efficiently, according to Universal Cooler engineers.

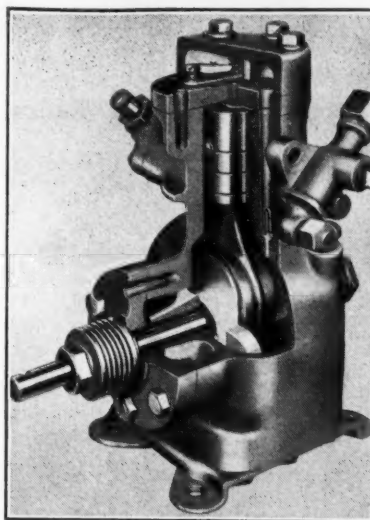
Cabinets in the intermediate and deluxe lines have gracefully arching lines, with full-front doors. Cabinet beauty is enhanced by the use of striations along the bottom of the door panel, and by the location of the large, round nameplate at the right-hand bottom corner of the door panel.

In the "economy" series the cabinet contours are more nearly square, but corners are nicely rounded, and lines running vertically down the length of the cabinet enhance its appearance.

The down-draft "double-cooling" style of evaporator introduced two years ago is again being used. However, a slight change has been made in the increase of the space between the outer shell and the inner cooling coil. For faster freezing of ice cubes, there are coils above and below each tray shelf.

Interior electric light on the new Universal Cooler household models is mounted above the evaporator. The

New Compressor



This is a cutaway view of the new compressor which is used on all Universal Cooler household refrigerators up to the 7-cu. ft. size. Among the new developments are a one-piece compressor body, new piston, an oil deflector, and a flapper suction valve.

trip-lever for the light is located on the top breaker strip of the door liner.

On the deluxe models an illuminated temperature control dial, and an illuminated thermometer are mounted on the baffle plate which covers the upper part of the evaporator front. The control knob is placed between the two dials.

Two of the trays in the deluxe models are fitted with flexible rubber grids.

Chief convenience features on the deluxe models consist of a special utility basket mounted on the inside of the door; a crisperator for keep-

ing fresh fruits and vegetables; storadrawer with chrome front; full-width sliding shelf; and lift-out shelf. A matched set of four food dishes and a water bottle is also offered with the deluxe models.

All but the smallest model in this series have two crisperators and two storadrawers.

The intermediate or "BD" series of models have much the same exterior lines as the "deluxe" series, but convenience features are more limited. The thermometer is built into the side wall of the cabinet. The utility basket on the door is a standard feature on all models in this series, but there are no dishes or covered pans as standard equipment. The economy or "CL" series are "stripped" models.

Economy Model

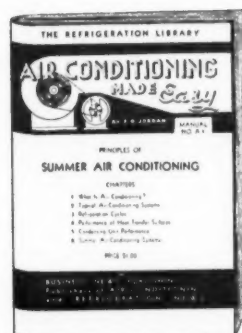


One of the models in the "economy" or low-priced series in the Universal Cooler line is shown in this picture.

Air Conditioning Made Easy

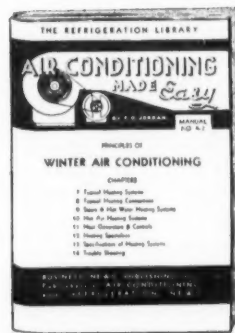
A Complete Course of Study Covering All Phases of Air Conditioning

By F. O. Jordan



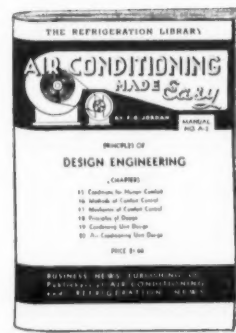
Manual A-1—Summer Air Conditioning

MANUAL NO. A-1—Principles of Summer Air Conditioning. Functions of Air Conditioning. An explanation of typical air-conditioning systems, refrigeration cycles, performance of heat transfer surfaces, condensers, unit performance and summer air-conditioning systems. 112 pages. Price \$1.00. (Ready for immediate delivery.)



Manual A-2—Winter Air Conditioning

MANUAL NO. A-2—Principles of Winter Air Conditioning. Chapters on typical heating systems, typical heating connections, steam and hot water heating systems, hot air heating systems, heat generators and controls, heating specialties, specifications, trouble shooting. 104 pages. Price \$1.00. (Now ready for delivery.)



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MANUAL NO. A-3—Principles of Design Engineering. Chapters on conditions for human comfort, methods of comfort control, mechanics of comfort control, principles of design, air-conditioning unit design. 112 pages. Price \$1.00. (Ready for delivery.) Others in this series, including a reference book, will be announced later.

These manuals provide a complete course of study covering all phases of air conditioning for contractors, architects, engineers, service men, and students.

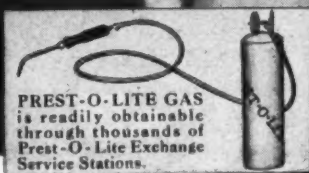
Written by F. O. Jordan, B.S.M.E., graduate of Purdue University, registered consulting engineer (Michigan), air conditioning editor of the NEWS. Mr. Jordan has had long practical experience in the engineering departments of leading manufacturers. In this series of manuals he has collected and arranged the essential information from all the sciences (mathematics, physics, chemistry, thermodynamics, etc.) required by air conditioning engineers and contractors.

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—Ideal for copper pipe installations



PREST-O-LITE Torches with Prest-O-Lite Gas produce instantly a clean, concentrated and exactly controlled flame of high temperature. This enables an operator to make joints neatly and rapidly without overheating, smoking up, or in any way damaging thin solder-type fittings. The efficient flame and the small size and light weight of Prest-O-Lite Torches mean economy and convenience for every user. Your jobber will gladly

demonstrate Prest-O-Lite Torches. Prest-O-Lite A-6106 Torch (illustrated) Price \$2.50 THE LINDE AIR PRODUCTS COMPANY Unit of Union Carbide and Carbon Corporation New York and Principal Cities In Canada: Dominion Oxygen Co., Limited, Toronto



SERVICE METHODS

Damaging Effects of Xylene on Gasket Materials Made from Synthetic Rubber Debated

Solvent Causes Neoprene Parts to Double in Size

Perfection Refrigeration Parts Co.
Harvey, Ill.
Nov. 24, 1937

Service Editor:

We note with interest your article in the Nov. 17 issue of AIR CONDITIONING AND REFRIGERATION NEWS relative to the use of Xylene as a cleaning agent for refrigeration systems.

Our purpose in writing at this time is as a measure of precaution. We have found from extensive experiments in our laboratories that the use of Xylene is most detrimental to DuPont, or Neoprene as this compound is now known.

We do not say that Xylene should not be used, for it is a most excellent cleaning agent, but it should be used with the greatest of care since so many manufacturers in the past few years have adopted the use of Neoprene compound in gasket material and for many other uses.

If Xylene is used to clean a unit, all traces of this chemical must be cleaned and removed before installing any part made of Neoprene or which has any portion of Neoprene in its assembly, since the effect of this solvent on the compound is to cause it to swell as much as twice its normal size in less than 24 hours.

In view of our findings in our experiments and use of Xylene, we believe that it would be most unwise to run a unit, as suggested by you,

with this solvent in it, if there is any part in the condensing unit which is made of Neoprene since the results, we are quite sure, would be most disastrous.

You will find the ultimate result to be a swelling and spreading of the compound and the eventual tearing and complete destruction of the portion made of Neoprene compound.

We write in this vein merely in an effort to pass on to you, and others in the service field, if it is not already known, the experiences with which we have been forced to contend, in the use of Xylene by those in the service field.

Possibly a word from you in your column would be most helpful to the majority of service men who, we are quite sure, are readers of your paper.

S. ELLISON

Kerotest Found Some Types Resisted Refrigerants

Answer: We will be very frank and admit that we never took this angle of it into consideration when we wrote the article because all the service men we talked with apparently had used Xylene with complete success. It is possible, however, that it just happened that they all used this solvent in machines that were not equipped with Neoprene gaskets or any control apparatus using Neoprene as a seating material.

You are no doubt familiar with the fact that there are several different

grades of synthetic rubber: that Neoprene is the base material which is manufactured by Dupont and supplied as a raw material to most of the rubber companies who mix it into a finished material and sell it under their own trade name as synthetic rubber.

Over a period of two years Kerotest Mfg. Co. conducted some extensive research in the use of synthetic rubber, with Neoprene as a base, for use as a seating material in pressure relief valves.

For a certain period Kerotest was convinced that synthetic rubber could not be used in a system using methyl chloride as the refrigerant, for it apparently had the same effect on the synthetic rubber as your experiments reveal that Xylene has; that is, it tended to cause the synthetic rubber to swell.

Kerotest was finally able to find two or three grades of synthetic rubber that would stand up very satisfactorily under methyl chloride, methyl chloride and oil, methyl chloride and moisture, and a methyl-chloride and oil and moisture combination.

Kerotest then proposed to supply the R. & H. Chemicals Department of DuPont company with methyl chloride cylinder valves using synthetic rubber as a seating material in the safety valve. The DuPont company was skeptical because in its own laboratory it had been unable to find a synthetic rubber with a Neoprene base that would stand up under methyl chloride.

Kerotest supplied samples of the seating material to the DuPont laboratory, also sample cylinder valves equipped with this synthetic rubber seating material to the R. & H. Chemicals Department at the factory at Niagara Falls. DuPont laboratory and the R. & H. Chemicals Department both found the material to be unaffected by methyl chloride, and R. & H. now use Neoprene in the safety device of many of their cylinder valves.

We are not trying to discredit your efforts. We are merely trying to point out that it may be possible that when you conducted your tests you were using a synthetic rubber that was chemically affected by the Xylene, whereas it might be possible that there is a suitable composition now available.

In this particular instance, we are writing to Merck & Co., Inc., Rahway, N. J., who make Xylene and also to E. W. McGovern of the R. & H. Chemicals Dept. of DuPont, enclosing a copy of your letter and our reply in an attempt to obtain more specific information on this subject.

Material Used in Test Recommended by DuPont

Perfection Refrigeration Parts Co.
Harvey, Ill.
Dec. 2, 1937

Service Editor:

Relative to your letter of Nov. 30 in response to ours of the 24th, we wish to supplement our statements and make clear one point which from your letter seems to have been overlooked.

You have stated—

"—it may be possible that when you conducted your tests you were using a synthetic rubber that was chemically affected by Xylene, whereas it might be possible that there is a suitable composition now available."

The material we used was a special compound with a Neoprene base, recommended by the DuPont company in conjunction with our regular source of supply, as the best compound to most effectively resist, not only Freon and other refrigerants, but also the swelling effects of oil and moisture. This recommendation was made after extensive tests had been conducted.

After all, we believe that the most satisfactory compound available should be one resistant to refrigerants, oil, and moisture rather than one resistant to Xylene, since the latter solvent is to be used only as a cleaner and can be removed after it has been used, thus reducing the danger of contacting any Neoprene substances with resulting injurious after-effects.

In closing, we wish to state that our experiments included material with Neoprene compound used as gasket material by Kelvinator, Frigidaire, and Kotary Seal and the results were the same.

S. ELLISON

Merck Has Made No Tests On Effect on Unit Parts

Merck & Co., Inc.
Manufacturing Chemists
Rahway, N. J.
Dec. 8, 1937

Service Editor:

We regret that we are unable to throw any light on the question which you have raised concerning the use of Xylene in the cleaning of refrigerator systems. While we have supplied considerable quantities of Xylene to the trade for this purpose, we have made no technical investigation of its application, particularly in a detailed fashion such as you mention in the effect of Xylene upon various compositions.

F. M. PARKER,
General Sales Division.

Effect of Xylene Similar to Methyl, DuPont Reports

Sales Division
E. I. du Pont de Nemours & Co., Inc.
The R. & H. Chemicals Department
Wilmington, Del.
Dec. 6, 1937

Service Editor:

After receiving your letter of Nov. 30, I got in touch with our Rubber Chemicals Division in regard to the effect of Xylene on Neoprene. I was informed that as far as Neoprene is concerned, Xylene is pretty much in the same category as methyl chloride, that is, certain compositions may show good resistance to it, while others may be badly affected.

Compositions which might be resistant to Freon, methyl chloride, and sulphur dioxide might not be resistant to Xylene, although it is probable that a methyl chloride resistant gasket would be at least fairly resistant to Xylene.

We understand that Xylene should be left in the system only a short time if it is to be used at all and in this case, it is possible that it would not have sufficient time to damage the gasket to any important extent.

As to Neoprene compositions resistant to methyl chloride, we have examined a large number of compositions supplied by our Rubber Chemi-

cals Division and have found several which were quite resistant. Rubber and gasket manufacturers can obtain information on these compositions from Rubber Chemicals Division, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. A number of Neoprene composition gaskets are on the market, which are being used satisfactorily with methyl chloride and other refrigerants.

E. W. MCGOVERN

Xylene Should Be Removed After Serving Purpose

Editor's Note: We are indebted to Messrs. Ellison and McGovern for the contributions they have made to this interesting subject.

It was not our purpose, however, to recommend that Xylene be left in a system indefinitely. Portions of the article read as follows:

"That Xylene should be eventually removed from the system is a foregone conclusion . . .

"Common practice is to allow the Xylene to remain in the system until the compressor again runs freely. After this time the complete oil and refrigerant charge is removed and the crankcase washed clean with new Xylene.

"Some service men add Xylene to a sticking system, allow it to operate a few days, then remove the entire system to the shop for a complete overhauling and baking.

"Xylene has been added to systems and never removed. This may be the exception to the rule, but good logic would seem to be in favor of removing the Xylene after it has served its purpose."

This is like the age old argument of how long to leave a dryer in the liquid line. Opinions vary considerably, but good logic is in favor of removing the dryer when it has served its purpose.

Same thing is true with Xylene. When it has served its purpose it should be removed. There are many systems now in operation, both commercial and household, that do not have synthetic rubber as gaskets or in controls as seating material.

It is difficult for the service man to determine this factor, hence we repeat that the Xylene should be removed when it has served its purpose as a solvent.

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> > > for 1938 < < <

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Miller makes it easy for you to get this business. Their simplified line of 20 gasket types enables you to meet 80% of all replacement needs. Years of specialized experience in this field assure you a product of proper design and highest quality.

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G. & S. Engineered OIL SEPARATORS

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THE AMERICAN BRASS CO.

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Refrigeration and Range Saturation by Income Groups in 16 Cities Given in Govt. Survey

City	Ref'n Saturation	No Income Range Ref.	\$1-\$500 Range Ref.	\$500-\$1,000 Range Ref.	\$1,000-\$1,500 Range Ref.	\$1,500-\$2,000 Range Ref.	\$2,000-\$3,000 Range Ref.	\$3,000-\$5,000 Range Ref.	\$5,000-\$7,000 Range Ref.	\$7,000 & Over Range Ref.
1. Providence, R. I.	12.7	0.0 4.7	0.2 3.3	0.3 4.4	0.5* 8.8	0.6 15.4	1.0 28.0*	1.2 46.8	3.6 63.1	2.8 78.9
2. Williamsport, Pa.	12.3	0.0 5.7	0.3 2.9	0.0 5.6	0.5 13.7	0.7 24.5*	2.7* 30.1	2.7 54.1	5.0 80.0	...
3. Peoria, Ill.	25.3	0.0 15.0	0.1 8.1	0.0 12.2	0.2* 19.3	0.0 34.3	0.2 41.1*	0.0 72.4	0.0 90.4	0.0 91.7
4. Kenosha, Wis.	12.0	0.0 10.0	0.0 3.0	0.2* 5.7	0.0 14.8*	0.5 21.3	0.9 41.0	0.0 55.8	0.0 50.0	...
5. Minneapolis, Minn.	22.6	0.2 10.6	0.1 6.0	0.4 10.5	0.5 19.8	0.6 28.9	1.4* 41.7*	2.7 58.0	2.8 69.4	4.4 78.8
6. St. Joseph, Mo.	24.9	0.0 14.9	0.5 6.0	0.6 11.4	3.2* 23.7	2.6 38.1*	1.9 44.6	2.3 68.6	0.0 68.4	4.2 70.8
7. Springfield, Mo.	20.8	0.8 5.0	0.2 3.0	0.2 11.0	0.0 24.6*	1.0 32.5	0.5 53.1	5.6* 67.8	0.0 80.8	...
8. Jacksonville, Fla.	7.2	2.7 6.8	0.3 0.6	1.4 1.9	4.8 11.7	8.5 18.5	14.2* 36.8*	26.6 53.1	35.3 64.7	...
9. Atlanta, Ga.	22.9	0.8 8.1	0.3 1.8	0.4 5.9	2.0 21.0	3.2 38.7	4.9* 58.0*	6.3 70.2	9.5 79.2	7.9 86.8
10. Charleston, S. C.	11.4	0.0 1.5	0.0 0.5	0.2 3.9	0.9 11.8	1.7 22.6	1.9 47.1*	4.8* 53.8	3.4 58.6	5.9 52.9
11. Richmond, Va.	33.4	0.0 18.1	0.2 4.5	0.2 7.8	0.4 28.6	1.1 44.5	1.4 63.4*	2.9* 75.9	1.7 93.2	1.4 89.9
12. Jackson, Miss.	13.2	0.0 12.5	0.0 0.9	0.0 6.1	0.0 6.7	0.0 19.7	0.0 28.8	0.0 55.12*	0.0 66.7	...
13. Little Rock, Ark.	21.7	0.0 7.4	0.0 2.9	0.0 7.5	0.3* 23.8	0.0 34.2	0.0 48.8*	0.0 67.1	0.0 76.5	2.7 73.0
14. Dallas, Tex.	21.9	0.0 10.6	0.0 4.5	0.1 7.0	0.0 13.7	0.2 21.4	0.4* 39.2*	0.5 54.7	0.7 69.7	0.0 75.9
15. Pueblo, Colo.	13.6	2.7 0.9	4.2 3.5	9.7 6.6	16.0 17.4	28.4* 28.9*	31.0 40.3	23.7 65.8	40.0 60.0	...
16. Seattle, Wash.	21.7	21.2 9.0	10.0 6.4	19.6 14.7	31.6 21.5	42.5* 28.7*	51.4 40.0	58.5 53.1	65.9 60.4	64.3 78.6

*Indicates income group containing largest number of owners.

Families with \$1,000-\$3,000 Incomes Are Largest Buyers of Household Electric Refrigerators, U. S. Survey Shows

WASHINGTON, D. C.—Families with incomes between \$1,000 and \$3,000 own most of the household electric refrigerators in the 16 cities covered in the Department of Commerce's report on "consumer use of selected goods and services, by income classes," recently made public.

Cities covered in the report include: Providence, R. I., Williamsport, Pa., Peoria, Ill., Kenosha, Wis., Minneapolis, St. Joseph, Mo., Springfield, Mo., Jacksonville, Fla., Atlanta, Charleston, S. C., Richmond, Va., Jackson, Miss., Little Rock, Ark., Dallas, Pueblo, Colo., and Seattle.

OTHER SUBJECTS COVERED

Treated in the survey, in addition to ownership of household refrigerators, is consumers' use of lighting facilities, installed bathing facilities, automobiles, heating apparatus, fuel for heating, fuel for cooking, and building materials used in homes.

Information submitted from consumers in the 16 cities covered indicates that, among families reporting incomes of \$3,000 or more, the percentage of families using mechanical refrigerators varies all the way from about 50 to 80% (see table).

LEADING CITIES

At the time the report was made (1934), mechanical refrigeration was used by from 20 to more than 30% of all reporting families in Peoria, Minneapolis, St. Joseph, Springfield, Atlanta, Richmond, Little Rock, Dallas, and Seattle; and by around 12% in most of the other cities.

In the cities where two or more races were represented, the proportion of all reporting white families having mechanical refrigerators greatly exceeded the percentage of reporting Negro families using this equipment.

INCOME TO USE

Relation between income and the use of mechanical refrigerators is revealed by the fact that, despite the relatively low percentage of families having incomes of \$2,000 or more, about one third of the families using mechanical refrigerators in each city had incomes of not less than \$2,000. This proportion was more than three fifths in Charleston, Jackson, and Dallas.

Reports from each city also indicate that the percentage of mechanical refrigerator users in any one income class exceeds the percentage

of users within the next lowest income group.

As stated, most of the mechanical refrigerator ownership in the cities covered in the current report was found in the income classes between \$1,000 and \$3,000 annually. Largest number of owners in any income class in each city is indicated by asterisks in the accompanying chart.

In practically all of the cities covered in this report, the group of families with incomes of \$5,000 or more had a higher percentage of families using mechanical refrigerators than was reported by any other class. Because of the relatively small number of families in these classes, however, they do not rank importantly as far as number of refrigerator users is concerned.

VALUE TO DEALERS

Principal value of reports of this type to distributors and dealers is that they give these merchandisers a picture (not the most up-to-date perhaps, but at least the most recent) of the comparative saturation points of various income classes in their territories.

Knowing these comparative figures, the distributor or dealer may then proceed with more certainty in directing his sales and promotion campaigns, to insure the most fruitful results. In the cities covered in the current report, for example, the merchant would be wiser to point his sales efforts at the income classes between \$1,000 and \$5,000 annually, since these classes not only are lower in refrigerator saturation than the \$5,000-and-up classes, but in addition contain a greater number of families.

HIGHER BRACKETS

There appears to be little "new business" available in the higher income brackets, although the distributor or dealer might continue to keep families in these classes in mind as possible sources of later replacement refrigerator sales.

Use of electricity in all probability has increased much in the three years since the 16 cities were surveyed, but the report as issued shows that electricity is used for cooking by about 30% of the reporting families in Seattle, about 13% in Pueblo, more than 3% in Jacksonville, and less than 3% in the remaining 13 cities.

Gas is shown in the report as the most used fuel for cooking material, with coal or wood second choice.

RANGE FIGURES

It is interesting to note that, in those cities where there is an appreciable use of electricity for cooking, the proportion of owner-occupant families using electric ranges is larger than that of tenant families.

It is also interesting to find that the proportion of families using electricity for cooking in each income class tends to be larger than is the proportion in the next lower income group.

That a potential market for both electric refrigeration and electric cookery exists in all 16 cities is shown by the fact that electricity is used for lighting by from 90 to 99% of the reporting families in 10 of the cities, and by from 93 to 99% of all white families in the other six cities; and that use of electricity is practically 100% among all families in all 16 cities with yearly incomes of \$2,000 or more.

Servel Dealership Formed in New Orleans Suburb

NEW ORLEANS — Hankins & Lowe Co. recently organized as a Servel Electrolux dealer in Algiers, suburb of this city. O. G. Hankins formerly was with A. Baldwin & Co. L. E. Lowe was purchasing agent for Billhorn, Bower & Peters, Inc., St. Louis.

Quinty Elected President of New Jersey League

TRENTON, N. J. — Joseph L. Quinty was elected president of the Central Jersey Electrical League at a meeting held here Dec. 8. He succeeds Donald Poore. Other officers were elected as follows: vice president, H. E. Gaskill; treasurer, Harry Siegreist, and secretary, R. T. King.

THE BUYER'S GUIDE

PRODUCING PROFITS—

That's what we're all interested in—profit! We must make a profit—you must make a profit, and that which we sell and you sell, must produce a profit for its final buyer.

When this combination of profits is embodied in a single item—it's time for you to concentrate your sales efforts on that item—the Peerless Unit Cooler for instance.

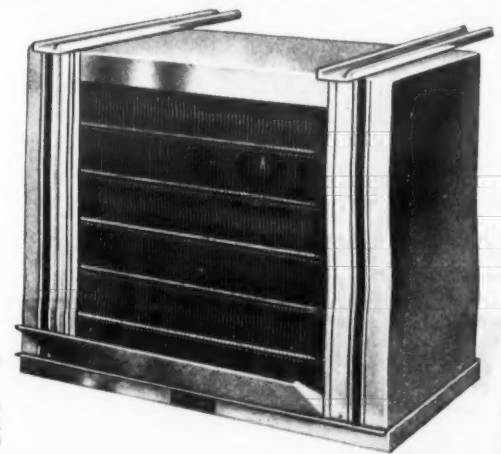
There's profit for you on this Unit Cooler because you get a fair mark-up, because less sales effort is required to sell it, because it is highly efficient in operation, and because your customer will come again.

The Peerless Unit Cooler is worth a lot to you—so try it.

PEERLESS of AMERICA, Inc.

ESTABLISHED IN 1912 AS THE PEERLESS ICE MACHINE CO.
New York Factory Main Factory—General Offices Pacific Coast Factory
49-20 34th Street 515 West 35th Street 3000 S. Main Street
Long Island City Chicago Los Angeles
PEERLESS JOBBERS IN ALL PRINCIPAL CITIES

BUY PEERLESS FOR PERFORMANCE



One Control For All Three Gases No High Pressure Gauge Needed

SULPHUR Dioxide, Methyl Chloride, Freon — this quality-built commercial control handles all three gases. No bother. May be set properly on the job without use of high pressure gauge. Range calibrated for all three gases. A precision control—and a money-maker for you.

Send for bulletin. For complete export information, write

RANCO, Inc., Columbus, Ohio, U.S.A.

RANGE CALIBRATIONS

Letter	Cut Out Pressure	Refrigerant
S	135 lbs.	SO ₂
M	175 lbs.	CH ₂ Cl
F	190 lbs.	F-12

Visual Range Adjustment

Ranco TYPE RLH-850 COMMERCIAL CONTROL

PERFORMANCE

Sells AND KEEPS IT Sold

PELCO

Electric BEVERAGE and BEVERAGE-FOOD Coolers



Cooling bottled goods from room temperature to desired degree in 20 minutes—enormous capacity—ability to hold cold longer (from 3 to 6 hours)—no "hot spots"—protected coils that promote sanitation and prevent loose labels, dirt, or other debris from retarding refrigeration—super-powered—precision built—THESE FEATURES enable PELCO to outperform any cooler you've ever seen!

Get the FACTS on PELCO today. Address Desk A-127



Floating Ice PELCO makes its own FLOATING ICE automatically, as needed.

Refrigerator Division PORTABLE ELEVATOR MFG. CO.
IN CANADA, UNIVERSAL COOLER CO. OF CANADA, LTD. BRANTFORD, ONTARIO • BLOOMINGTON, ILLINOIS, U. S. A.

VIRGINIA SMELTING CO.
WEST NORFOLK VIRGINIA
EXTRA DRY ESOTOO
LIQUID SULPHUR DIOXIDE
V-METH-L
VIRGINIA METHYL CHLORIDE
131 State St. Boston—76 Beaver St. New York

THE BUYER'S GUIDE

TYLER

WELDED STEEL

Refrigerators





This year, more than ever, the Tyler line is the popular line in the commercial refrigerator field. Now complete with Top Display, Double Duty, Delicatessen, Reach-In cases and Walk-In coolers. Sizes and types to take care of every prospect. Welded steel construction and other exclusive features make TYLER



THE FAST SELLING LINE

Tyler's quantity production methods have made possible a new standard of values that gives you unbeatable sales ammunition. Write now for new literature and dealer details.

TYLER FIXTURE CORP. Dept. E, NILES, MICH.
NEW YORK OFFICE: 601 W. 20TH ST. CHICAGO OFFICE: 1883 W. OGDEN AVE.

New A.P. 44

OWN YOUR OWN BUSINESS IN 1938



Air Conditioned Model

THRU' THE H. & H. "38" PLAN

Are You a REAL Commercial Refrigeration or Fixture Salesman? The H. & H. '38 Direct Dealer Plan Will Put You In Your Own Business. **MAKE LARGE DEALER PROFITS**, (not small commissions)

Our '38 Plan Offers:—

1. Direct factory-to-dealer exclusive franchise—floor models—sales kits—descriptive literature THAT SELLS.
2. Complete line—Dulux and porcelain display cases, streamlined and conventional models—market coolers—grocery boxes. Over 50 different models and sizes—make regular dealer profits.
3. Free—forceful mail advertising—DIRECT TO EVERY PROSPECT IN YOUR TERRITORY.
4. To finance the H. & H. products and any nationally known compressor of your selection, both on the same contract with regular down payment and terms.
5. We discount your contracts—converting them into dollars—**IMMEDIATE PROFITS TO YOU.**

Valuable Territories Now Available—**ACT NOW!**
WRITE, WIRE COLLECT giving us all information; experience, sales ability and territory YOU NOW COVER.

HOLCOMB & HOKE MFG. CO.
1545 E. Van Buren St. Indianapolis, Indiana

SIX NEW CASES BY WEBER

New Steps to PROFIT



The most complete line of Refrigeration Equipment—New Streamlined Beauty—Unchallenged quality. Exclusive Territories Now Available—Complete Financing Plan.

Established 1902—
Cable Address: "WEBERCO"

Weber Showcase & Fixture Company, Inc.
5700 Avalon Boulevard Los Angeles, California

ARE A PART OF LEITNER SERVICE • LEITNER EQUIPMENT

Leitner ECONOMY REFRIGERATED DISPLAY CASE

IS CUSTOM BUILT

This case is very popular—every inch Leitner quality. Beauty, too, in stainless steel with heavy chrome hardware.

M. LEITNER & COMPANY
2322 Ogden Ave. • Chicago, Ill.
WRITE FOR FREE CATALOG



BE A PART OF YOUR SOURCE OF SUPPLY

BROMANN BROS.

We have had an interest in your problem for over 40 years, to sell a quality line that sells on sight. Earn more Dollars and have a warm family service behind you, whereby you will be able to have a jobber's discount with direct factory buying power.

BROMANN BROS.
857 Fulton St. Chicago, Illinois

AIR CONDITIONING

82 Zephyr Air Installations Made during Year in New York City Territory

NEW YORK CITY—Eighty-two installations of Zephyr Air air-conditioning equipment have been made this year in the territory covered by A. F. Hinrichsen, Inc., New York City distributor for the equipment, now manufactured by Apex Rotarex Corp., Cleveland.

Forty-one of the installations have been made in the Rockefeller Center group of buildings, most recent of which was the general office of the Continental Baking Co., in the International building. This installation, now being completed, will include five 10-ton units and one 5-ton unit. An unusual installation in the French building of the Rockefeller Center group is in the wine sampling rooms of the G. H. Mumm Co., wine importers, where conditioning apparatus is used to keep constant temperature and humidity, so that samplers may enjoy the full bouquet of the wine.

Other installations in Rockefeller Center buildings include three suites of offices occupied by Continental Oil Co., where a total of 14½ tons of equipment is used; the same company's dining room, in which a 5-ton system is installed; and the offices of Arthur Kudner, Inc., advertising agency; Bristol-Myers Co., F. N. Burt Co., Consolidated Chemical Co., David C. Reid, Motor Development Corp., Berlitz School of Languages, International Mining Corp., Harris

Upham, Inc., Feagin School of Dramatics, and Wadsworth Watch Case Corp. All of these are in the International building.

In the RCA building, Zephyr Air units are installed in the offices of Nelson Rockefeller, Monsanto Chemical Co., the RCA board room, Universal Pictures Corp., the office of David Sarnoff, and Greenfield Tap & Die Co. The RKO office in the building of the same name is also Zephyr Air equipped.

Other Zephyr installations in and near New York City include offices and residences of C. C. Conway, Charles Pratt, Commander Koehler, in New York City; Decoursey Hard, Cedarhurst, L. I.; A. D'Oench, Manhasset, L. I.; Jos. Ripley, Garden City, N. Y.; Max Dreyfus, Brewster, N. Y.; Fred T. Hufnagel, Greenwich, Conn.; Dr. E. L. Wood, Newark; Thos. Lamont, Oyster Bay Cover, L. I.; G. E. Wuerth, Montclair, N. J.; E. F. Hutton, Wheatley Hills, L. I.

In addition, the company's equipment has been installed in Presbyterian hospital, New York City; Kings County hospital, Brooklyn; Grasslands hospital, Yonkers, N. Y.; Babies hospital, Newark; Muhlenberg hospital, Plainfield, N. J.; and King Edward VII hospital, Bermuda; and in the Detex Clock Co., Daniel Moscow Co., J. M. Horton Ice Cream Co., and Rogers Peet Co., all in New York City.

Three Types of Loads Handled by System Installed in Funeral Home

SHREVEPORT, La.—A Carrier 10-hp. air-conditioning system serving for a regular low people load demand in one part of the building, an occasional high people load demand in another, and a "short notice" light loads, whereas the chapel, built on Cahn Electric Co. in the Wellman funeral home here.

Reception rooms and offices of the funeral home, which occupies what once was a small apartment building, had to be air conditioned for small, but almost continuous people loads, whereas the chapel, built on the main floor, had to be conditioned for people loads up to 100, although only for short periods several times a week.

A further demand adding to the variety of conditions which had to be met by the one system was that a group of display rooms for caskets, on the second floor of the building, had to be conditioned for periods ranging from 10 minutes to a half hour at irregular intervals, and often on short notice.

To meet this rather unusual situation, the Cahn company installed the Carrier 10-hp. system so that it could be reduced to 5 hp.

"This reduction in capacity," explains Fred Cooper, Cahn air-conditioning sales-engineer, "was accomplished by a pressure switch which is sometimes used for changing motor speeds upon the change of suction pressure due to variation of the cooling load. As the return air warms the coils, the suction pressure increases, throwing the motor into high speed. Low speed is accomplished when suction pressure is reduced."

A double cooling coil provides maximum moisture removal. Mr. Cooper pointed out, thus placing emphasis on low humidity rather than on low temperature. In this way, occupants of the rooms are utilized in obtaining the cooling effect through evaporation of perspiration from their bodies.

Main duct system along the ceiling of the first-floor corridor provides the principal instrument of flexibility in the system, inasmuch as it serves the chapel on one side and the reception rooms and offices on the other. Basically, the duct system was designed to provide adequate air capacity for the chapel alone.

This arrangement of ducts makes it possible for certain ones to be shut off in favor of others, or all turned

on at the same time.

Another "tapping in" on the main duct system is made before it enters the first-floor hall. This is to supply the upstairs ducts with air.

Air-Conditioning Orders for 10-Month Period Are Valued at \$29,793,279

The following report of orders booked by 125 manufacturers of air-conditioning equipment during October, 1937, is compiled by Director William L. Austin, Bureau of the Census, Department of Commerce.

Item	Value of Orders Booked		
	October, 1937	October, 1936	Total, 10 Mos. 1937
Total	\$3,938,053	\$4,401,101	\$56,551,756
Air Conditioning Group—Total	1,285,305	1,377,201	29,793,279
Unit Systems—			
Self-contained (shipped substantially complete)....	193,557	101,558	5,565,621
Not self-contained (shipped in sections), including refrigerating or cooling medium.....	415,281	526,492	8,387,346
Central-station Systems, excluding installation if installed—			
Human comfort (including refrigerating or cooling medium sold separately or otherwise for air conditioning)*	310,687	292,595	9,573,707
Industrial (including refrigerating or cooling medium sold separately or otherwise for air conditioning)*	110,487	199,360	802,774
Refrigerating or cooling medium sold to contractors or other distributing outlets (not manufacturing air-conditioning equipment) for air-conditioning systems, when such knowledge as to the application is available	112,218	13,872	2,916,129
Air washers, including pumps and motors and control where furnished	41,235	59,937	874,112
Air filters (not including sales of filters used with machinery other than fans)	36,815	30,101	355,660
Humidifiers	65,005	153,286	1,317,930
Fan Group—Total	\$1,269,994	\$1,387,968	\$17,068,888
Fans, including bearings, pulleys or couplings (if furnished)—			
For public and semi-public buildings	110,867	154,431	1,714,630
For general industrial uses	388,582	406,346	5,039,274
For mechanical draft	181,745	150,529	2,740,633
For jobbers' stocks and unknown uses.....	62,344	77,644	1,329,080
Small housed and propeller fans—			
Direct connected small housed blowers with motors and control (merchandise motors)	169,942	173,248	1,646,131
Propeller fans, direct connected and belted (for ventilation only)	283,850	284,607	3,593,423
Driving mechanism for general fan use (not reported above)—			
Electric motors and controllers (manufactured or jobbed)	68,776	132,074	886,628
Steam engines (manufactured or jobbed).....	3,838	9,089	113,099
Steam turbines (manufactured or jobbed).....			
Unit Heater Group—Total	\$1,382,804	\$1,635,932	\$9,695,579
Industrial Type Unit Heaters, including heating element and motors where furnished—			
Equipped with blower-type (centrifugal) fans.....	178,220	283,528	1,492,126
Equipped with propeller fans	953,199	1,084,832	4,328,228
School Room Type Unit Heaters, including heating element and motors and control where furnished..	87,953	96,381	1,220,538
Indirect Heating Surface (not including unit heater surface)—			
Steel pipe coil type (manufactured or jobbed).....	263	3,848	30,281
Cast iron type (manufactured or jobbed).....	7,262	13,957	124,900
Copper or aluminum type (manufactured or jobbed)	155,907	153,386	2,499,516
*Includes incidental equipment, such as temperature, motor, humidity, and electrical controls, dampers, outlets, etc., as are sold with each.			

Functions of Body Compared to Air Conditioning

BUFFALO — The human body functions similarly to modern mechanical air conditioning, Dr. Thomas D'Arcy McGregor, nose and throat specialist, told members of the Air Conditioning Council of Western New York at their regular monthly meeting here.

"Mechanical air conditioning as we know it today includes automatic control of the air temperature, humidity and cleanliness of the air," the speaker said.

"The body performs all these functions, automatically warming all the air we breathe in the winter; humidifying it to such a point that often as much as two quarts of water are consumed daily in this function, and filtering it by both mechanical and electrical static processes resulting from the hair and membrane growth within the nasal passages."

Dr. McGregor described the efficiency of the human body in keeping the body temperature at nearly the same level despite variance in atmospheric conditions. He asserted the body temperature does not vary more than 1% whether it is subjected to the frigid North Pole or to the equatorial heat.

Dr. Nelson Strohm, member of the Erie County Medical Society, gave a report of a hay fever experiment conducted by the Medical Society and the Council during September in the model home of the Buffalo Niagara Electric Corp. Preliminary tests show sufferers of hay fever are relieved to a great extent by the air conditioning in this home, Dr. Strohm said.

"The air-conditioning industry is doing much to alleviate the sufferings of chronic hay fever," the physician stated.

Carrier Gets Contract for Cooling Auditorium

NEW ORLEANS—Carrier Corp.'s bid of \$180,000 for installing an air-conditioning system in the Municipal Auditorium here has been officially approved by Mayor Robert S. Maestri. Work begins immediately.

Carrier Shows Profit Of \$557,369 in First 9 Months

SYRACUSE, N. Y.—Net profit of Carrier Corp. for the first nine months of 1937 was \$557,369.39, after deduction of federal income tax reserve, moving expenses in coming from Newark to Syracuse, and other excess overhead incurred during the moving period. L. R. Boulware, vice president and general manager, states in the company's latest report to stockholders.

Company balance sheet as of Sept. 30, 1937 shows current assets of \$4,964,041.97, of which \$852,510.27 is in cash. Current liabilities are \$1,741,915.15, of which \$250,000 is in notes payable to banks on Dec. 31, 1937.

Close to \$500,000 will be spent in equipping the Franklin automobile plant taken over by Carrier last July, Mr. Boulware reports, but he points out that this is considerably less than would be required to reproduce the property acquired, or bring the company's former quarters up to present requirements.

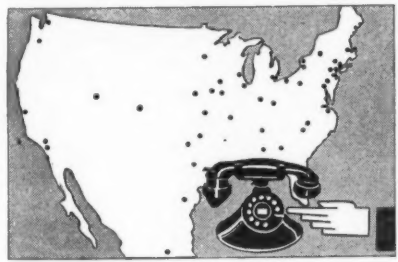
More than 600 Carrier employees, Mr. Boulware reports, were brought from Newark to Syracuse at company expense; 200 others moved to Syracuse at their own expense. New employees, he said, are being drawn from those available in Syracuse.

10 Air Conditioners Sold In Oklahoma In Oct.

OKLAHOMA CITY—Ten sales of air-conditioning equipment were reported during October in the territory of Oklahoma Gas & Electric Co. This is an increase of 24% over the total for the same month last year.

The 10 sales represented an addition of 243.50 hp., bringing new horsepower added in air conditioning for the first 10 months of 1937 to 1,472, an increase of 37% over the previous year.

COAST-TO-COAST



DISTRIBUTION!

Wherever you are, you're always near the source of **Artic**

(DU PONT METHYL CHLORIDE)

Prompt delivery in standard containers from stocks in principal cities. Write for list of distribution points.



E. I. Du Pont de Nemours & Co., Inc.
The R. & H. Chemicals Dept., Wilmington, Del.
ARTIC—the preferred Methyl Chloride for Service Work

Anaconda Copper Refrigeration Tubes

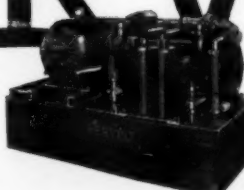
Easily Bent



THE AMERICAN BRASS CO.
FRENCH SMALL TUBE BRANCH
General Offices: Waterbury, Conn.

SERVEL

COMMERCIAL REFRIGERATION and AIR CONDITIONING



Are your requirements large or small, standard or special? Servel can help you! Write today to Servel, Inc., Electric Refrigeration Division, Evansville, Ind.

Air-Conditioning Dealer Warns of Need for Making Allowance for Maintenance & Upkeep in Air-Conditioning Bids

BIRMINGHAM, Ala.—In bidding on air-conditioning contracts, include an allowance for a period of maintenance and upkeep, cautions John H. Bethune, of the Bethune Electric Co., a concern which has handled nearly \$100,000 worth of air-conditioning contracts—most of which were for medium size installations—during 1937.

"With competition in the air-conditioning business keen, contractor-dealers are prone to overlook the important expense item of keeping up the equipment, at least until it is paid for," said Mr. Bethune.

"We have found that the cost of maintaining the equipment for a period of time runs about \$15 per month. Until the machines are accurately adjusted, several call-backs are usually necessary. Such items as packing water pumps or stopping refrigerant leaks require the attention of a serviceman.

"Our policy is to call back about every 15 days whether sent for or not, just to see that the equipment is operating properly. After machines

operate under pressure for several days, a better adjustment can be made, and leaks more easily stopped.

"Of course a contractor can save himself trouble by having a good engineering department, one that carefully lays out the job—but even then an allowance should be made for upkeep costs during the guarantee period."

The Bethune Co. is equipped to do its own sheet metal work, and is associated with a general contractor and plumber, so that work done on air-conditioning jobs is handled from the one office, and is therefore more closely supervised.

This concern has handled several road house and night club air-conditioning installations. One of them is located in a natural cave fitted up as a night club with seats for 1,500 diners.

Other Bethune installations this year include two Birmingham clothing stores, an apparel shop, a theater, a confectionery stand, an undertaking shop, and the Selma offices of Alabama Power Co.

Importance of Climate in Military Campaigns Cited in Study by Dr. Mills

CINCINNATI—Disregard or ignorance of the physical fact that the ease or difficulty by which body heat may be thrown off determines the vitality and energy of human beings has played an important part in the world's history, declares Dr. Clarence A. Mills, professor of experimental medicine at the University of Cincinnati.

In regions of moderate heat, Dr. Mills states, the human body readily dissipates the heat it generates, thereby stimulating physical functions and increasing energy. In hotter climates, however, warm moisture in the air makes it difficult for the body to lose its heat, and a lowered vitality results.

To support his theory, Dr. Mills, who has made an intensive study of the effect of weather on military forces and movements, cites several examples from conflicts which have altered the path of civilization's progress.

Revolutions against tyranny, the doctor says, which demand greater freedom of individual activity have for the most part flared up in cold, stormy years immediately following prolonged periods of warmth. The French revolution of 1789 came in one of the coldest years Paris ever experienced after a long spell of heat. Similarly, the succeeding European revolutions of 1830 and 1848 broke out in cold weather which had been preceded by prolonged warmth.

The War of 1812, the doctor points out, occurred in the first year with a sub-normal mean temperature in a decade and a half in America.

Napoleon's ill-fated invasion of

Russia in 1812 failed because of climatic conditions, Dr. Mills believes. Neither the Emperor's men nor horses were accustomed to the severe cold they encountered on the way to Moscow, and the shock robbed them of their energy so that they had to retreat to the warmer climate of continental Europe to which they had become adapted.

The unusually cool weather of 1917 was a factor in the United States' entrance into the World War, avers the doctor, because the general vitality of the people was high. And the unusually warm weather experienced in Austria and Germany from July, 1917 to June, 1918 was a factor in the defeat of the Central Powers, because the energy of the public had been sapped by the heat.

No future military campaign should be undertaken without consideration of climatic conditions, Dr. Mills states. As an example, Dr. Mills suggests that if troops are being transferred from Panama or the Philippines to posts in the middle western states, they should stop in the south or southwest to become acclimatized to the change in heat and humidity.

Troops should be sent to areas where the climate is little different from that of their home territory, Dr. Mills says.

He also recommends that men from temperate zones who are sent to tropical regions should be quartered in artificially cooled barracks. Eight hours of cooling a day, he believes, would maintain the necessary amount of vitalized energy in the men.

117-Year-Old Building Is Air Conditioned by Carrier

PHILADELPHIA—A 117-year-old building on the site of the commons where Benjamin Franklin made his famous experiment with his kite has been turned into an up-to-date women's wear store through a complete renovation program which included installation of a Carrier air-conditioning system.

The Lane Bryant organization, merchandiser of ladies' apparel, took over the building in 1935, and immediately proceeded to modernize it. The store now has three air-conditioned sales floors, basement, and an office floor. The conditioning is accomplished by Carrier unitary cooling equipment, dehumidification apparatus, and an air-circulation system.

Year-Around System Installed In Chain Drug Store

PHILADELPHIA—Third unit in the Sun Ray drug store chain, opened here recently, includes a year-around air-conditioning system as one of its modern features.

A 30-hp. condensing unit has been installed in the store to insure summer cooling and dehumidification. A centrally located conditioner, equipped with a 5-hp. fan, is used to circulate properly tempered air through a duct system harmonizing with other furnishings of the store.

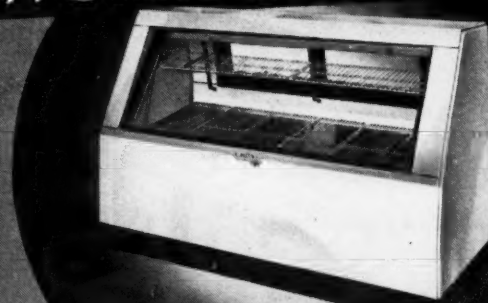
Installed on the roof is a 2-hp. evaporative condenser, to assure continuity of operation. Central station steam is provided for winter heating.

Airtemp Conditions 4 Cars on New York-Philadelphia Train

DAYTON—Airtemp air-conditioning equipment has been installed on the four 56-passenger cars of the new high-speed, light-weight streamlined train recently put into operation between New York City and Philadelphia by the Reading Railroad. Dining car and cocktail lounge of the train are also equipped with Airtemp conditioning.

THE BUYER'S GUIDE

The 1938 KOCH LINE is READY



KOCH

No. Kansas City, Mo.

Distributors Will Be Interested Write Koch Now For Proposition

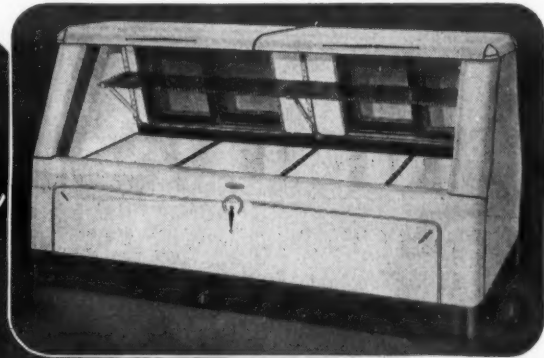
The 1938 Econ-O-Case is the price leader in a complete new line of display cases. Single, double, and triple duty models to meet every need... and every Koch Case is insulated with pure corkboard.



Cordley ELECTRIC WATER COOLERS

Profitable cooler business depends on having the right coolers to sell. Cordley Coolers are compact and good-looking; a simple, trouble-free mechanical unit; made by a concern specializing in water coolers for almost a half century. Priced to give you an attractive profit, these coolers are used by such representative concerns as Sears Roebuck, American Optical Company, Remington Rand, Otis Elevator, Sun Oil Co., Pacific Mills, CORDLEY & HAYES, 141 Hudson Street, New York City.

NEW Percival STREAMLINER!



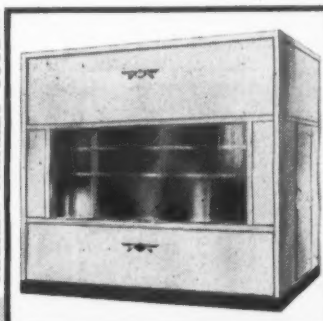
DISTRIBUTORS WANTED!

Write for details of Profit-making franchise. Complete PERCIVAL line meets every requirement of the modern food store.

Modern styling... Beautiful design... Outstanding construction... Economical operation! TOMORROW'S case, presented TODAY! Get the jump on other distributors by selling this modern marvel of electrical refrigeration. Its NEW style and NEW features give you exclusive selling advantages! NEW PERCIVAL FINANCE PLAN HELPS YOU SELL.

C. L. PERCIVAL COMPANY
DES MOINES IOWA
51 YEARS OF SERVICE 1886-1937

SHERER MARKET COOLER



DISPLAY AND STORAGE EQUIPMENT FOR RETAIL FOOD STORES

SHERER

REFRIGERATED EQUIPMENT

Our 1937 line offers extraordinary profit opportunities for refrigeration dealers. Your opportunity for sales to meat markets, food stores, restaurants, bakeries, etc., is greatest with the SHERER line. Write for details about the Sherer Case and Cooler Franchise... there are still desirable territories available.

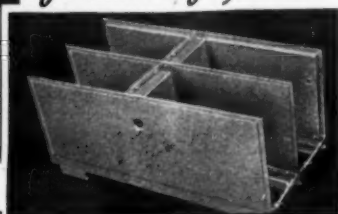
SHERER-GILLET CO.
MARSHALL MICHIGAN

KOLD-HOLD ICE CREAM CABINET CONVERSION UNITS

Modernize old equipment... provide much greater storage space for packaged goods... eliminate brine leaks and attendant odors... reduce weight and simplify installation... require a minimum of service... provide ideal temperatures under all conditions... cost less to operate... quickly and easily installed in any standard cabinet at small cost.

Write for Complete Facts
KOLD-HOLD MFG. CO. - LANSING, MICH.

As Outstandingly Superior as the KOLD-HOLD System of Truck Refrigeration



New 9-Inch Lathe Built By South Bend Firm

SOUTH BEND, Ind.—South Bend Lathe Works has announced a new, 1938 model 9-inch workshop precision lathe in seven different types and available with more than 35 attachments, making it an all-service tool for refrigeration service shops, manufacturing plants, automotive repair shops, school machine shops, etc.

One of the seven types is a 12-speed model with spindle speeds ranging from 40 to 1,200 r.p.m. Features on all types include simplified twin gear reverse, one-piece semi-steel lathe bed with prismatic V-ways, and improved back-gear headstock with adjustable spindle bearings.

Doherty Manages Industry Relations for U. E. I.

CHICAGO—Appointment of George D. Doherty to the newly created position of industrial relations manager of Utilities Engineering Institute has been announced by E. P. Sorensen, president.

In his new position, Mr. Doherty will contact executives in the refrigeration and air-conditioning industry in the interest of the institute, its training program, and its graduates, Mr. Sorensen said. One important phase of his duties will be the arranging of employment matters between graduates and firms seeking qualified service men.

Girdler Proposes Revision of Wagner Act as Cure for Business Recession

CHICAGO, Dec. 14—The first step which should be taken to curb the current recession and get more men back to work again is to revise the Wagner Act so that both parties to collective bargaining—employers as well as employees—will get a square deal, Tom M. Girdler, chairman of Republic Steel Corp., said in an address tonight at the annual banquet of the Illinois Manufacturers Association in Hotel Stevens.

"At present the law says that employees should have the right to bargain collectively without interference, restraint, or coercion from the employer," Mr. Girdler said. "But employees should also be free from coercion or intimidation from labor organizers. What we want is protection against coercion or intimidation from any source."

FREEDOM OF WORKER

"Let's apply once more in this case the basic rule of democracy—a workman should be free to do whatever he pleases, as long as he does not infringe upon the rights of others."

Speaking to Illinois manufacturers on the subject, "What's Ahead in Industrial Relations?", Mr. Girdler said that "the immediate problem confronting us has become one of discovering, if possible, how we can speed up the wheels of industry—how we can keep men at work and put men back to work."

NO ECONOMIC CAUSES

"The prolonged decline which began in 1929," he said, "was the inevitable world-wide liquidation of the great inflation period growing out of the World War. By contrast, at present there are no basic economic causes making for a prolonged recession. On the contrary, there is right at hand the economic basis for a great period of industrial activity and prosperity which would give employment to millions of our people."

"There is a widespread need for the building of new homes all over the country and for rehabilitation programs by the utilities and the railroads. Inventories of commodities are not generally excessive and interest rates are low. These are elements that should make for prosperity."

"Why, then, have we had a decline which has reduced steel operations from above 90% in the spring to around 30% now? Why has the specter of great unemployment again appeared? Why are investors afraid to venture, and consumers reluctant to buy? What is stopping business men from planning ahead? Why is it that in all the world America is the only important country suffering from the ravages of a serious business recession?"

RESTORATION OF CONFIDENCE

The suggestion that industry is deliberately encouraging the recession in an effort to embarrass the national Administration, and that capital is staging a sit-down strike, is "a preposterous idea, a product of twisted thinking," Mr. Girdler declared. "We are faced with a great emergency which calls for straight thinking and sane national action," he added.

"The big job ahead is to restore confidence by removing the causes which have undermined it. And the first step in that direction is to have a clear understanding of what those causes are. This is no time for bitterness or name-calling or sulking. But it is the time for a fearless and dispassionate search for the causes of our present plight so that we may know what steps are necessary to remedy or to eradicate them."

SERIES OF POLICIES

"The more we examine the existing situation, the more clear it becomes that the great uncertainty abroad in the land today does not come from economic causes. It comes from a whole series of national policies, probably well intended in their humanitarian objectives, but impractical in their operation and administration and undemocratic in their impact upon the country."

"Instead of the freedom of democracy, we have been faced with a

strait-jacket of specialized legislation and punitive taxation.

"Instead of free competition, we have had restraints and regulations."

"Instead of the law of supply and demand, we have encountered processing taxes and production control."

"Instead of encouraging cooperation among all our people, we have seen class aligned against class."

ENCOURAGE LABOR TROUBLE

"Instead of the basic American doctrine that a successful business enterprise is an aid to employment and prosperity, we have had insidious attempts to create the impression that a successful and profitable business is a threat to the well-being of the people."

"Instead of encouraging cooperation and understanding between employees and employers, we have had the amazing spectacle of the national administration actually encouraging certain labor leaders in their efforts to foment hatred and breed discord among workers."

"Instead of maintaining some measure of consistency in national policy enabling business to know where it stands, we have had all manner of inconsistency. Just one example has been the administration's drive for higher commodity prices and the stiling of costs and prices through heavy taxes and other means, only to be followed by a federal investigation of the alleged monopolistic causes of these selfsame advances."

ARTIFICIAL BUSINESS AID

"We have seen certain artificial methods tried in an attempt to secure steady employment and to make business prosperous, and we have found out that these artificial methods just will not work. They will not work because from the very start they were based upon unsound concepts," Mr. Girdler declared.

Admitting that, under modern conditions, certain governmental regulations for business are highly essential, Mr. Girdler nevertheless insisted that business must oppose regulation or control which is punitive in intent and destructive in effect.

The problem business has had to contend with in the last few years, he said, has been the piling up of every sort of unsound legislation affecting business, coupled with a constant barrage of governmental harassments, inquisitions, and broadside attacks. The cumulative effect of all this, he added, has been to create a heavy atmosphere of all-pervading uncertainty.

FUNCTIONS OF GOVERNMENT

The function of government should not be to control industry, he insisted, but rather to regulate activities in the country so that unsound and unethical practices are avoided.

"But when we go from regulation to control, we are on the verge of the next step which is government management—Fascism—and from there it is only another step to government ownership—Communism. It is not necessary to wait for the last step in the process to see where we shall come out if we follow that line," he declared.

"Government rules and regulations which are genuinely in the public interest and which will permit business to function normally, deserve to stand. But those measures of government control which are hamstringing prosperity and causing unemployment, should be removed. That would be a first step in a genuine recovery."

RIGHTS OF OTHERS

"I believe the time has now come when we must look to first principles. I think we must adopt the idea that what our government should say to its citizens is something like this—'You are free to believe what you please, to think what you please, to say what you please, and to do what you please, as long as what you do does not interfere with the rights of other people whose rights must be protected just as carefully as yours.'"

"If democratic principles prevail once more we can tackle the job of bringing this country back to prosperity. You will find no lack of

cooperation on the part of business. It wants to do its part."

One of the underlying influences which is doing much to defeat prosperity is the Wagner Act, and the manner in which it is being administered, Mr. Girdler said.

"The idea of cooperation and of a partnership between management and workers has been outlawed," he said. "Instead of legislation and a national policy which would foster peace and understanding between employees and employers, we have a Wagner Law which encourages ambitious and irresponsible labor leaders to fan the fires of class conflict."

RESULTANT STRIKES

"What has been the result? We have seen this year a serious and widespread outbreak of strikes, accompanied by every form of violence and law-breaking, and involving hundreds of thousands of workers in hundreds of industries. The economic loss in production and in wages has been staggering and beyond belief. Is it any wonder that from this one cause, if there had been no other, uncertainty has taken hold in this country and that thousands upon thousands of business men have asked themselves the question, 'How can I plan ahead under such conditions?'"

"Most of the labor disturbances this year were the result of a daring effort to fasten a labor dictatorship upon the workers and upon industry in this country. The medium was to be an industrial union. The demands

(Concluded on Page 19, Column 1)

THE BUYER'S GUIDE

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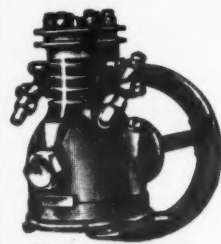


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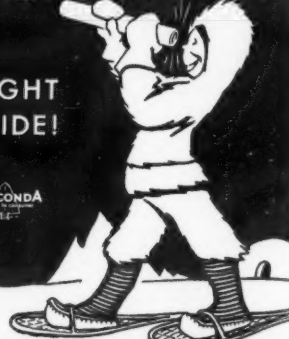
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Girdler Gives His Views on Proper Types Of Labor Legislation in Speech to Illinois Manufacturers

(Concluded from Page 18, Column 5) in the vast majority of cases did not involve grievances on the part of the workers themselves, collective bargaining, or even wage increases or better conditions of work for them.

"To establish one big industrial union in this country would mean a stratification of our economic life. It would make for regimentation, for a rigidity which will bring on more rigidities. This would limit the opportunity for a man to get ahead in the world, to get a better income and improve the living standards of his family. And when that comes we will have a whole negation of the great advances which have marked American industry and which

have made America the leading industrial nation of the world."

Examination of the industrial history of this country discloses the fact that great and growing mass industries, whose workers have avoided outside unions, have set the pace in wages and working conditions, Mr. Girdler said.

Citing the steel industry as an example, he said that average annual wages there have been greater than the combined average for all industries ever since 1874, for which records are available.

Steel industry workers, however, did not avoid collective bargaining, he added. He recited the story of Republic Steel's battle with the C.I.O. last summer, and the ultimate collapse of the strike when the union used force and coercion to win its points among the workers.

COLLECTIVE BARGAINING

Facts brought out in the strike, he declared, reveal the serious nature of the obstacles placed in the way of industrial peace in this country. One of the greatest of these obstacles, he added, lies in the legislation involving the right of collective bargaining.

"Collective bargaining," he declared, "is indispensable under modern industrial conditions. But to have collective bargaining does not mean that employees and employers must be placed at sword's points. That is exactly what the Wagner Act seems designed to do."

"Our laws were enacted to protect the rights of the various citizens of this country. Corporations have to obey our laws, and it seems to me that even strikers ought to obey our laws. I don't know whether we need any new laws in this connection—I say this, because in the case of strikes called by the C.I.O. it has been proved time and again that the moment we had enforcement of our present laws, the strike was over. But it would help if we had further legislation defining a little more precisely what our laws do or do not allow strikers to do."

PRINCIPLES FOR LEGISLATION

"To sum up my views on this subject, I believe that whatever final form labor legislation may take it should embody certain basic principles. Among these are the following:

- "1. Employees should have the free right to bargain collectively with their employers through representatives of their own choosing, without coercion from any source.
- "2. No employee should be forced to pay dues to a union.
- "3. All employees should be permitted to take a vote by secret ballot on whether or not they want to strike.
- "4. Responsibility of a union in any contract or agreement should be equal to the responsibility assumed by the employer."

INDUSTRIAL RELATIONS

"The problem of industrial relations has become a major concern of management, and over the coming years the test of successful management will be increasingly its ability to hold the loyalty and cooperation of its employees. There are no trick ways to solve that problem. Signing up with the C.I.O. and calling it a day won't do it. Mere collective bargaining of any kind will not do it alone."

"There must be the will and the earnest, constant endeavor on the part of management, from the top executive to the foreman in the plant, to understand the problems of its employees—the human problems and economic problems—whether they be large or small."

"Who can hope to know these day-to-day problems so well as management itself, which is in day-to-day contact with the men? And once those problems are understood they must be met and dealt with squarely, honestly, patiently, fairly. If we will adopt that formula and work at it most of our labor problems will dissolve in thin air."

"The revision of the Wagner Act and further definition of the rules of collective bargaining constitute only

one of several vital steps which must be taken if we are to reverse the current trend of business and get back again on the road toward better times.

"We must make a real effort to balance the national budget and wipe out the threat of ruinous inflation. To move forward, business must, above all else, have confidence in the future. How can we have confidence when we are uncertain of the credit standing even of our own government?"

"We need a drastic revision of our present methods of taxation. The Undistributed Profits Tax as now set up is directly contributing to unemployment. The tax penalizes the retention of earnings in a business for the purpose of installing new machinery and equipment. This means less business and less employment in machinery and equipment industries."

"The Capital Gains Tax should be revised. As the tax stands today, it places a heavy penalty on prosperity. The Social Security plan should be revised. As it stands today, it places an unduly heavy burden of taxation upon both employees and employers, without guaranteeing the security which it is designed to provide."

HEAVY TAXATION

"But don't think we can get out of heavy taxation. Some way, somehow, we have got to pay for the spending spree in which we have been engaged for the past five years."

But I do say that we are not going to be able to pay enough taxes to foot this bill unless we are allowed to go ahead and do some business. We can't solve the taxation problem of this country by taxing business out of existence."

"We can only solve it by getting business back to the point where it will be able to afford a tax bill of the size needed to straighten out our national finances."

"And above all else, let us have no more new experiments in government control. I don't care what the purposes of these proposed new plans may be—the very fact that they propose still more of the same old medicine is proof enough that they can do this country no good, and may do it still further serious harm. The very idea of more governmental encroachments upon the freedom of doing business is in itself enough to hamper and discourage enterprise."

250 Members Attend York 25-Year Club Banquet

YORK, Pa.—More than 250 members of the 25-Year Club of York Ice Machinery Corp., consisting of employees who have been with the company for 25 years or more, held their annual banquet here recently, with W. S. Shipley, president of the club and of the company, as toastmaster.

Included in the members attending were four women employees, who came to York from Los Angeles, St. Louis, Boston, and Brooklyn.

Present membership of the club is 316 persons, representing an aggregate length of service with the company of 10,003 years. Of the club's members, four are in the 45-year group, 23 in the 40-year group, 65 in the 35-year group, 105 in the 30-year group, and 119 in the 25-year group.

Officers elected by the company for 1938 are: Norman Landis, president; Luther Bond, vice president; Lea Becker, secretary, and F. Marion Dick, treasurer.

Long Directs Purchases For Nash-Kelvinator

DETROIT—H. E. Long, former vice president of purchasing for Nash Motors, has been appointed director of purchases for all divisions of Nash-Kelvinator Corp., according to an announcement by George W. Mason, president.

Mr. Long's central purchasing office is at the Kelvinator factory here.

With Nash, Mr. Long was purchasing agent and vice president of purchasing. When Nash and Kelvinator merged last January, he became a vice president of the corporation.

B. P. Watkins and E. H. Clauson will assist Mr. Long in his new position, the former serving as purchasing agent for Kelvinator and Leonard division, the latter for Nash Motors division.

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